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ARTICLE I.

TREATMENT OF EMPYEMA. Read before the Chicago Medical Society, April 16, 1883, by E. FLETCHER INGALS, A. M., M. D., Prof. of Laryngology, Rush Medical College. Prof. of Diseases of the Throat and Chest, Woman's Medical College, Chicago, Ill.

Empyema, or, as it is often termed, chronic pleurisy, is an affection which has been so long known that little of interest can be said regarding its history, etiology or symptomatology; but much interest must necessarily be felt in the treatment, which has been greatly improved within the past few years.

No longer ago than 1874, Dr. Loomis* wrote that only one-eighth of the cases of empyema which are operated upon recover, while one-fifth of those in which a spontaneous opening occurs get well; but I cannot think there would be such a large mortality if proper treatment was adopted.

Of fourteen cases which have lately come under my observation, where operations have been performed, only five have died.

*Loomis, Diseases of the Respiratory Organs, Heart and Kidneys, p. 200.

and of these, two were moribund when operated on, living only a few hours, while one died three weeks after the operation, apparently from the opening of an abscess of the liver into the peritoneal sac.

One died three months after the operation from exhaustion. I operated on this case for another physician, and the subsequent treatment was left almost entirely to the patient. Could he have had care, I think he would have recovered.

The fifth case was one in which the effusion was at first sero-purulent, and he died, notwithstanding the best care I could give him.

The two cases that were moribund at the time of aspiration, I had never seen before. I think they might have recovered had they been operated on a few weeks earlier.

Excluding these two cases and the one who died from the opening of the abscess into the peritoneal cavity, only two, who had any reasonable chance of recovery, have died, out of eleven cases, and considering the unfavorable surroundings and lack of treatment of one of these, it seems hardly fair to use it as evidence against the operation.

But one out of ten cases would then be left, and in this the effusion was sero-purulent at first, which condition, according to Bowditch,* is nearly certain to prove fatal. However, at the worst, the deaths were only a fraction over twenty-eight per cent., while the quotation referred to gave over eighty-seven per cent.

Of some of these cases I have no notes; of some, the notes are meager, while others present no features of peculiar interest.

CASE I.—Is interesting from the fact that the patient was only ten months old, and recovered after a single aspiration.

The babe was the daughter of Mr. R., of this city, who called me to see the child on the 10th of last January.

I found her suffering from what appeared to be an ordinary cold, but three or four days later she began to develop signs of pleurisy of the left side.

The disease went on through its usual course until about the end of the third week, after which the patient ceased to improve, and remained in this condition for some time.

*From a personal letter from Bowditch.

She was eating but little, sweating profusely, vomited often and had a bad cough. At the end of the fifth week, finding that there was no tendency toward absorption of the effusion, I aspirated the chest and removed about eleven ounces of pus.

The cavity was not entirely emptied, but as some blood made its appearance, I thought it best not to continue the operation. It is now six weeks since I operated, during which time the patient has steadily improved. There has been no re-filling of the cavity, and the lung has expanded well since I last saw the child, and I have been told by the parents that it appears to be entirely well, having no cough, sweating, indigestion or dyspnœa, and is steadily gaining in weight and strength. *

CASE II.—J. E., æt. thirty-five, came to the dispensary in April, 1881. He gave the history of an acute attack of pleurisy five years previous. I found marked distension of the left side of the chest, flatness on percussion, and absence of respiratory murmur. The heart was crowded two inches to the right, and there was a distinct mitral murmur.

I aspirated the chest and removed three quarts of pus, when I was obliged to stop, because of a sense of pressure on the sternum, though the cavity was not emptied. I repeated the operation six times during the following two months, but was never able to empty the cavity until the last operation. During this time, the fluid had gradually diminished in quantity, and was becoming less purulent in character.

At the seventh operation, I withdrew one quart of slightly purulent fluid, making about twelve and one-half quarts in all. The cavity was then empty, and I determined on a radical operation as soon as it should refill. The patient did not return to me again until the September following, having been working all summer. Upon examination, I found the left side of the chest again distended, measurement showing the circumference of the right and left sides to be respectively sixteen and seven-eighths and seventeen and one-fourth inches. I aspirated, and drew off seventy-four ounces of sero-pus, and two weeks later I removed thirty-six ounces more.

* Since the above writing the father has reported to me that the child is pepfectly well.

The operations were repeated from time to time until October 4, when I introduced the aspirator needle in the axillary region, between the sixth and seventh ribs, and drew off about two ounces, which seemed to empty the cavity. The fluid was slightly tinged with blood, but to the eye had no appearance of pus. This was the thirteenth and last operation.

During the treatment, the patient had taken iodide of potassium, tincture of iron, quinine, strychnine, etc., from time to time, and had been given sedatives when needed, for cough.

I saw the patient again in January, 1883. He had been troubled with a cough for two months, and recently with an abscess in the ear. The side was retracted, and contained no fluid. I ordered a simple cough mixture, which was effective.

I did not see him again until April 3, when he stated that he had been feeling badly for some time, but had been sick only about two weeks. He was coughing considerably, and expectorating mucc-pus. His general appearance was bad. Examining the side, I found it as large as the other, and tympanitic on percussion. Amphoric respiration could be heard over the entire side. There was no fluid in the pleural cavity.

This is one of those rare cases in which repeated aspiration cured the empyema. I should have deemed it best to perform a radical operation in this case early, had I been able to empty the pleural sac without giving pain, but as this was impossible before the seventh operation, on account of compression of the lung of long standing, no other course was left for me. Subsequently, the gradual diminution in the amount of liquid at each operation, and the lessened percentage of pus each time, with its final disappearance, rendered the radical operation unnecessary.

The pneumothorax had been recently developed, and not until all evidence of purulent effusion had been absent for fifteen months. It was doubtless due to rupture of the lung, some part of which had become much weakened by pressure which it had to bear as the result of the retracted condition of the chest wall, which had a constant tendency to regain its former position. Had drainage tubes been inserted in this cavity four or five years earlier, the two surfaces of the pleura would have become adherent, and the pneumothorax would not have occurred.

CASE III.—The notes of the following case have been kindly furnished me by Dr. J. L. Mulfinger, of this city, for whom I operated.

The patient, H. S. a boy, aged three years and nine months, was taken in the latter part of February, 1881, with scarlet fever. The fever ran its usual course, with this exception, that the eruption was not well marked, and lasted but two days. The throat symptoms were unusually severe.

With the subsidence of the rash the temperature gradually diminished until the desquamative stage was reached, at which time it was 100.5° F.

At about this time, although the patient had been closely watched and not allowed to leave the bed, he began to be troubled with a cough, which in a few days became severe, the temperature again rising until it reached 105° F.

The respiration became short and quick, the patient sweating profusely. The doctor found an effusion in the left pleural cavity, and on April 9th I aspirated the chest, drawing off about a quart of pus, when I was obliged to desist on account of the pain. The cavity re-filled, and on April 15th I introduced two drainage tubes, and allowed the fluid to escape until the patient complained of pain. A one per cent. solution of carbolized water was then run into the cavity until it was sufficiently full to relieve the pain. On the following day, the cavity was *thoroughly* washed with carbolized water.

This was repeated twice daily for several days, the tubes being kept closed in the interval. At the end of a week the patient's general condition had so much improved that he was able to eat.

The cavity steadily decreased in size, and in a short time would hold no fluid. The tubes were now gradually withdrawn, the washing out of the cavity being continued, one of the tubes being accidentally washed out about the 5th week.

The other tube was removed a week later, and at the end of the seventh week the patient had completely recovered.

He has since grown well, having pefect use of the lung and no difficulty with the side.

This was the first case in which I used two drainage tubes.

They were inserted through separate openings about an inch apart.

In subsequent operations I used two drainage tubes, but they were both passed through the same opening.

One feature of this case was of special interest as disproving the theory, which I have seen advanced, that there was no need of cleansing the cavity. About five days after the operation, the doctor called, after a longer absence than usual, and found that the patient's temperature was three and one-half degrees higher than when he last saw him. Upon cleansing the pleural sac the temperature fell to its normal point, and did not again rise during the treatment.

CASE IV.—I was called August 1, 1881, in consultation with the late Dr. Mead, to see C. G., who had been taken six or eight weeks previously with an attack of typhoid fever, which had been followed by an attack of pleurisy.

I found the patient in a greatly prostrated condition, and sweating profusely. He was suffering considerable pain, and experiencing great difficulty in breathing, the right side of the chest being distended to a marked degree. The patient was greatly emaciated, and was in a general anasarcous condition. I aspirated the chest, and withdrew about a pint of pus, when I was obliged to desist because of pain. Four days later, I again aspirated, drawing off at this time about twenty-four ounces of pus.

On August 8, I performed the radical operation, introducing a large-sized trocar about one and one-half inches to the right of the mammillary line, between the fifth and sixth ribs. Through the canula I inserted two drainage tubes; then withdrawing the canula, the drainage tubes were left in position.

I left instructions for the frequent cleansing of the cavity, and gave directions for the subsequent use of astringent injections. Solutions of sulphate of zinc, varying in strength from gr. ii–xxx to ℥i were used, and later, the sulphate of copper, in solutions varying in strength from gr. v–xx to ℥i. The cavity was washed out twice daily, and part of the time free drainage was allowed by leaving the tubes open, the end resting under water; but much of the time, for the first few weeks, the patient insisted upon keeping the tube closed, as it caused him less inconvenience.

Weak astringent solutions were used at first, the strength being gradually increased, until, at the end of two months, we were using about gr. xx–℥i of the sulphate of copper every other day. The cavity, at this time, had a capacity of about two ounces.

The patient then went into the country, remaining two or three months, during which time he used the injections himself. On his return, I found that the cavity would hold only about ℥ii.

In the month of February following, he came to me again, and upon examination, I found the cavity completely obliterated, with the exception of a sinus which extended nearly longitudinally backward from the opening for a distance of about six inches.

To heal this, nitrate of silver in strong solution was used, but with little improvement; afterward tincture of iodine, solid nitrate of silver, solid sulphate of copper, and finally, fuming nitric acid were employed. The latter gave the best results, about one and one-half inches of the sinus being obliterated in a short time, but as the patient was living in the country, so that I could not see him often, I unfortunately gave him some of the acid, directing him carefully how to use it, and asking him to come and see me again in three or our weeks.

He used it so faithfully that the former good effects were completely counteracted, and on his return, I found a cavity holding ℥ii. Milder measures were then adopted.

My method of using the nitric acid had been to oil a soft rubber catheter thoroughly, and then draw into the distal end of it one or two drops of the acid. The catheter was then introduced into the bottom of the sinus, and the acid expelled by blowing into the tube. The patient, I presume, used five or six drops at a time, and repeated it too often.

Finally, about August 1, I had a long, flexible electrode made, and used it with the galvano-cautery, following the cauterization, for several days, with an injection of a solution of acetate of lead, gr. xx–℥i. The cauterizations were repeated two or three times, with the best of results, the case being reported to me as perfectly cured about a month after the first cauterization.

The electrode was first tested with the battery, to ascertain the length of time necessary for the wire to become red-hot, which was usually about four seconds. After allowing it to cool, it was

introduced to the bottom of the sinus, and the electric current turned on; after about five seconds it was withdrawn so as to sear two or three inches of the sinus, and then the current was cut off.

In the five cases remaining which have recovered, there was nothing of peculiar interest.

Of the five patients that died, two, as already stated, were dying at the time of the aspiration, and neither presented any peculiar features. In the two who died of exhaustion after the radical operation, one had good care, and the other practically none.

The remaining one of the fatal cases presented some interesting features, which are detailed below.

CASE V.—The patient, G. T., æt. seventeen, a schoolboy, was taken sick April 22, 1882. He went to bed apparently well, but awakened at 3 A. M. with a severe chill, followed by fever and vomiting, and pain in the right hypochondriac region.

Dr. E. Ingals saw the patient the next day, at which time he seemed much better, having no pain; but about forty-eight hours after the first attack, the pain in the region of the liver again returned, and he was never free from it afterward. Three days later, the abdomen became tympanitic, the pain extending over the entire region, and a few days afterward the pain extended above the diaphragm, the pleura having become involved.

On May 8, after consultation with Dr. E. Ingals, I inserted an aspirator needle near the axillary line, between the fifth and sixth ribs, but obtained no pus. I then inserted it near the angle of the ribs, in the eighth intercostal space, and withdrew seventy-five ounces of pus. The patient now began to complain of pain below the lower border of the ribs on the right side anteriorly, so the aspiration was stopped, but the pain still continued, and became so severe as to cause great depression, and finally collapse, from which he did not rally until after eighteen or twenty hours.

May 14, I introduced two drainage tubes, through a canula, the trocar of which was inserted near the point of former puncture.

Several ounces of pus escaped while the tubes were being introduced, but no air entered. No pus was withdrawn through the tubes. Next day, I found that there had been no leaking, and no bad symptoms. The tubes were opened, but after four

ounces had escaped, was obliged to desist on account of the pain.

I saw him again May 20. The tubes had been opened twice a day regularly, and a weak solution of carbolic acid run in at one while the pus escaped at the other, but it was impossible to empty the cavity of the water after the pus had been washed out, on account of the severe pain. The pulse ranged from 104 to 120. Temperature 99.5. For the last two days, the patient had complained much of nausea and "rolling" of the stomach. I then substituted eucalyptol and boracic acid for the carbolic acid.

On the morning of May 25, saw the patient felt and appeared better than ever before since the first operation.

He had been steadily improving until two days previously, since when he had complained rather more than before of pain.

No air had entered the chest, but, although the cavity was evidently much smaller, I was unable to empty it on account of the pain.

In the evening, the father reported to me that the boy had had a chill, and was still cold. I found him in a condition of collapse. When I saw him the next morning, he had not recovered from the collapse, and had vomited frequently a dark greenish fluid.

In the afternoon he was much worse, and appeared to be sinking rapidly.

With each expiration, a large bubble appeared to break through the fluid in the stomach. He died at 6 o'clock the next morning. I could not get a post-mortem.

These cases illustrate what may and what may not be done by operative procedures. The statistics which show that one-fifth of those in whom a spontaneous opening occurred recovered, while only one-eighth of those operated on recovered, would at first seem to render operative procedure unjustifiable; but we must not overlook the fact that in these, the cases which did not live long enough for the opening to occur are not mentioned. If the latter cases could be accurately collected, it would probably be found that not more than one in thirty recover when left to nature.

Four or five operations, similar in character, have been recommended in the treatment of empyema. Of these, aspiration is the first, and should always be done, not only as a means of determining if it be actually empyema, but to ascertain whether

or not the cavity may be emptied without causing great pain. The operation itself causes only momentary pain, and the evacuation of the pus is usually attended with very little danger, provided it is stopped at once, when the patient complains of a sense of pressure on the sternum, or has a strong inclination to cough, or when blood appears in the fluid.

Any of these symptoms indicate that more pressure on the delicate air-cells would be unsafe.

Second.—An operation in which a valvular opening is made with a scalpel, the wound being carefully closed after the pus has been evacuated. It is much less satisfactory in its results than those operations in which provision is made for free drainage of the cavity.

Third.—Chassaignac's operation for free drainage, which is done by making two openings in the chest, one above and the other below, and passing through them a perforated drainage tube.

This operation has fallen into disuse, as more recent methods have been found more successful.

Fourth.—An operation recommended by Fraentzel, in which the thorax is opened and a short metallic tube inserted, through which catheters may be introduced to wash out the cavity. This is one of the best operations for empyema, and there may be a few cases in which it is the very best, but the difficulties encountered in keeping the canula in position, and the amount of personal care from the physician which is demanded, make it less desirable, in the majority of cases, than the operation which I have performed for several years.

Fifth.—The operation which I like the best for its simplicity, convenience and good results, is made by puncturing the thoracic wall with a broad, flat trocar, through which two drainage tubes, or rather, a tube bent upon itself, is passed into the pleural sac. The canula of the trocar which I use is two inches in length, measuring one-half of an inch in its broadest diameter, and one-fourth of an inch in its shortest diameter. The drainage tube used is pure rubber tubing, with a caliber of one-eighth of an inch. The ends which are to hang in the pleural cavity are perforated, one for a distance of an inch, and the other a distance of about four inches, in order to facilitate perfect cleansing of the cavity.

I first make an incision in the skin one-half inch in length, through which the trocar is plunged into the pleural cavity. As the perforator is withdrawn, the pus spurts from the canula, but is immediately stopped by the thumb until the double tube can be picked up. The latter (the external ends of which have first been closed by a string) is then pushed in through the canula the required depth, usually four or five inches, and the canula withdrawn, when the tissues contract firmly on the rubber tube, so as to prevent either the entrance of air or the exit of pus.

In order to still farther protect the opening, the drainage tubes are now passed through a piece of sheet rubber three inches square, near the center of which, and within an eighth of an inch of each other, two small holes, one-twelfth inch in diameter, have been punched.

This sheet is carried down close to the surface of the chest, where it acts as a valve to prevent the entrance of air, should the tubes become loose. Then over each tube, by the aid of a canula, is carried a half-inch section of the same kind of tubing, through which two loops of stout cord have been passed.

These sections are carried down close to the chest, through the loops are passed adhesive straps to make them fast, and thus secure the drainage tubes, and over the dressing, close to the drainage tubes, is passed a bandage. The operation is then complete, and not more than an ounce of pus will have escaped, and not a particle of air will have entered.

The tubes may then be opened under water, and the pus allowed to escape, but in some cases, on account of shock, I have thought it best to delay washing out the cavity, or even allowing the pus to escape, until the next day.

With the tubes thus arranged, we have perfect control of the case, and if we desire it, all air can be excluded from the cavity for eight or ten days, but by the end of this time, the tissues usually retract about the tubes so that air is liable to enter; there is, however, no objection to this at this time, though earlier it is sometimes objectionable.

Usually, for the first three or four weeks after the operation, the cavity should be washed out daily with antiseptic solutions; later, stimulating washes of the sulphate or chloride of zinc,

sulphate of copper, iodine, etc., must be used, if the cavity does not steadily decrease in size. I think it especially desirable to carefully watch the progress of healing after the cavity is reduced to a capacity of one or two ounces, for from this time on, healing is apt to be slow, and unless care is used, a troublesome fistula will remain.

ARTICLE II.

POINTS IN TYPHOID FEVER. SERVICE OF DR. M. MANNHEIMER, ALEXIAN BROTHERS' HOSPITAL CHICAGO, DR. THOMETZ, HOUSE PHYSICIAN.

From August 1, 1882, to January 20, 1883, there were treated in the Alexian Brothers' Hospital fifty-two cases of typhoid fever. Of this number, twelve (12) were admitted in August, sixteen (16) in September, eleven (11) in October, eight (8) in November, and five (5) in December.

Most of the patients were between twenty and thirty years of age, the youngest being fourteen, and the oldest forty-five. Nearly all of them were sick from one to eight days before entering the hospital. The usual prodromic symptoms were complained of. The principal symptoms were headache, dizziness, chills, insomnia, excessive thirst, and a tired, painful feeling in limbs. The countenance usually presented a flushed appearance, and in a day or two later, a dull, stupid expression, the tongue being dry, nearly always coated, and often swollen. Epistaxis occurred in 15 out of the 52 cases; looseness of the bowels in about 40. The typhoid spots on the abdomen were found in 23 cases only. In four cases, the disease set in suddenly, with intense headache and violent delirium. For diagnosis, the symptoms usually relied upon were headache, fever, dicrotic pulse, and enlargement of the spleen, not omitting the appearance of the tongue. The spleen was found enlarged in 31 cases on admission to the hospital, and the pulse found to be dicrotic in at least the same number of cases.

Two of the patients claimed that they had typhoid fever several years ago.

During the course of the disease, the usual symptoms of typhoid fever were met with, want of appetite existing in nearly all cases during part of the disease. The characteristic pea-soup stools were found in almost every case; exceptionally, there would be no appreciable change from the stool of a healthy individual.

Tympanitis, intestinal gurgling, and iliac tenderness were also found. Slight hæmorrhage from the bowels occurred in four cases.

A subacute bronchitis existed in almost every case, hoarseness of the voice from slight laryngitis, and deafness from the dried condition of the mouth and Eustachian tube leading to the ear.

Slight delirium usually occurred in the middle of the disease, the delirium not being very violent or acute, except in those cases already mentioned, where disease commenced by delirium. Mental condition was weak, dull, and indifferent.

The pulse was accelerated, in ordinary cases, to about 90 beats per minute, in many cases not going over 90 throughout the disease. In the more severe cases, the pulse would range from 90 to 120, being at the latter figure during the height of the fever. As convalescence approached, the pulse would decline, often below normal, to 60, and in several cases to 40; the main characteristic of the pulse being its quick, vibratory and dicrotic quality.

As regards the temperature, we found a gradual rise, both in morning and evening, until a certain height was reached, where it would remain four or five days, sometimes two weeks, and then gradually decline.

There was a difference in the morning and evening temperature of from 1 to 2° F. At the height of the disease, the temperature in the evening ranged between 104° and 105°; and in the morning between 102° and 103.5.° When the fever had declined, it was not unusual to see the temperature of body rise almost suddenly to 103°, and even higher, and in a few days become normal again. A sudden rise during the course of the disease betokened some complication.

Relapses occurred in six cases, and these passed through a second career with the characteristic symptoms aggravated but of shorter duration. None of these proved fatal.

Of the complications that occurred, there were three with acute bronchitis, one with laryngitis, five with pneumonia, two

with thrombosis of femoral vein, both of the left side, and one case with acute orchitis and epididymitis. Perforation of the intestine occurred in one case; the perforation on post mortem examination was found to be about eight inches above the ileo-cæcal valve.

Average number of days of treatment was twenty-six, counting from the time the patients entered until fever was gone for six to ten days, and the men able to be around the hospital.

Forty-two patients were in hospital four weeks and less, eight were from six to nine weeks, and two cases were there three months before they left.

Out of the fifty-two cases, four terminated fatally. The cause of death in one case being the occurrence of a pneumonia; one died from peritonitis following a perforation; one, aged 44, died from continued high temperature, and one death occurred in an overworked and debilitated patient.

TREATMENT.

The object of our treatment was not to abridge the duration of the disease, but to tide the patient over it. The diet was carefully attended to; milk, eggs, and farinaceous preparations were used. About 7 A. M. the patients were allowed a cup (8 ounces) of milk with a slice or two of toast; at 9 A. M. and 3 P. M. they received a bowl of milk punch (consisting of milk, eggs, and whisky). For dinner and supper—milk, toast, and farinaceous soup. This plan of dieting suited nearly all of the patients, and rarely was it necessary to make any change.

Alcohol was used judiciously. As soon as there were any indications for its use it was administered as a supporting and stimulating measure.

Nearly all were put on a slightly acidulated mixture, ℥ss of dilute muriatic or phosphoric acid in ds ℥iv of water, and ℥ss given three or four times daily. Water was freely allowed, to be taken often and in small quantities, so as not to overload and distress the stomach. Cleanliness, free ventilation and good nursing was required in the fever ward. Palliative measures were now and then called for. Protracted insomnia was relieved, and refreshing sleep procured by bromides. Excessive and exhausting diarrhœa was immediately checked by astringents in a mucilag-

inous mixture. Constipation relieved by injections of warm soap water.

REDUCTION OF TEMPERATURE.

Believing that many typhoid cases would die from the continued high temperature it has been our endeavor to keep down the bodily heat. For this purpose, various methods have been tried. Quinine in 15, 20, 40 gr. doses have been tried and with good results in a few cases. In two patients, whose evening temperature, was 105° and 106°, 30 grs. of quinine in one dose reduced the temperature to 98° F., and no subsequent rise. But most of the patients objected to the quinine, vomited it up, or complained of headache upon its use. Digitalis and quinine together were sometimes used. Sponging the body was resorted to in some cases.

Packing the body in the wet sheet and sprinkling with cold water reduced the temperature from one-half to two degrees in from three to four hours; the temperature would rapidly rise on removing patients from the sheets.

Salicylate of soda was used, and by far the best results were obtained from its use. The drug was exhibited in doses of 15 grains every ½, 1, 2 or 3 hours, depending on the temperature. If the temperature was 103° or higher in the morning, two doses were given ½ hour apart, the third dose an hour later, and if a fourth dose was necessary, it was given 1 or 2 hours later, until the effect of immediate reduction in temperature followed. After the first, or at least second dose, the dry, burning skin becomes moist, the rapidity of the pulse lessens. After using it two or three days, the dry, parched tongue becomes wet, the black fur gradually disappears, and the patient gets a ravenous appetite.

In three-quarters of our cases, we have used the salicylate to keep down the temperature, and find it to be better than quinine or any form of wet packing. It is easily taken, does not disturb the stomach as often as is thought, and does not weaken the patient. Only one patient out of about forty who used it, complained of headache from its use.

When several doses were used in quick succession, a tablespoon of whisky was given with each. To show the action of the remedy, a copy of one of the records is subjoined:

A. D., age 25, entered hospital in evening, with temperature of 103.4°. In morning at 9 o'clock, temperature was 101.4°; at 10, 11 and 12 he took 15 grains of sodic salicylate; at 2 P. M. temperature was 101.2°, and 6 P. M., 100.4°. Next morning, temperature was 101.4°; at 2 P. M., 103.2°; and at 2:30, 3:30 and 5, 15 grains were given; at 6 P. M., temperature was 101.2°. Next day no salicylate was used, and the evening temperature was 103.5°. These figures speak for themselves.

If one drachm of the drug is used in one dose, its effects are not as good and as persistent as when given in 4 divided doses.

It seems that by its use, the duration of the disease is not as long as without its use; the patients seemed improved in every way; they felt better and looked better. They convalesce rapidly. Why it acts so favorably, we cannot say, unless it should be that some form of poison in the blood is rapidly eliminated through the skin and kidneys. We could find nothing better than it, and nothing equal to it, unless it should be the judicious and frequent use of cold baths, and these cannot be given properly where there are many patients.

ARTICLE III.

CASE OF DEFLECTION OF THE SEPTUM NARIUM.

By E. FLETCHER INGALS, A.M., M D.,

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The little patient, F. McG., aged 28 months, was brought to me by the family physician, Dr. P. J. Rowan, of this city, about the middle of last February, on account of obstructed nasal respiration and deformity of the nose due to deflection of the septum.

The child was apparently perfectly healthy excepting a rhinitis. The mother told me that several weeks previously he had received two or three severe falls, striking upon his nose, and since that time she had noticed some deformity and gradually increasing difficulty in nasal respiration, with resulting restlessness at night.

I found the end of the nose bent to the right and flattened,

and the septum bent in the opposite direction so as to completely occlude the left naris. A few days later, with the assistance of Dr. Rowan, I gave the child chloroform, and, with a nasal forceps, bent the septum forcibly back to its normal position, where it was retained by means of a plug of gutta-percha inserted into the left naris, and held in position by its end being lodged in the pocket at the tip of the nose.

A couple of days later this plug was replaced by a gutta-percha tube accurately fitted to the nasal cavity, which was worn for the next five weeks until a perfect cure was effected.

The forceps which I use for the purpose is similar to that of Dr. William Adams, of London, England. It has long, flat blades which when closed do not touch each other by about two millimeters, thus leaving a space which prevents too severe contusion of the tissues of the septum. Between the ends of the blades and the joints there is a much wider space as represented

in the annexed cut, which allows for the thicker tissues between the nostrils.

In performing this operation it is important to bend the septum thoroughly or even to break it so as to destroy its resiliency, otherwise it will immediately spring back to its abnormal position, and even though the plug be worn for weeks, a cure will not be effected.

In deflection of the septum, as I have formerly pointed out,* there are various degrees of deformity due either to simple fracture or distortion of the septum, or to enlargement of its cartilaginous portion with consequent bending. The latter cases cannot be cured by the method here described, but, as stated in the article already referred to, the excess of tissue must be removed.

After the septum has been replaced it may be held in position

*_Archives of Laryngology_, October, 1882; reprinted in the CHICAGO MEDICAL JOURNAL AND EXAMINER, December, 1882.

by plugs of cotton, or sponge, or by clamps or solid plugs, fitted for the purpose. The porous substances are objectionable because they soon become very offensive and have to be removed, which causes the patient much pain.

The clamps, as recommended by Adams, are theoretically valuable but practically undesirable.

A properly-fitted smooth plug or tube, which will not absorb moisture, will be found most satisfactory. I have found gutta-percha to be the best substance of which to make the plug or tube, as it can be easily and accurately molded by the surgeon to fit the case in hand; while hard-rubber tubes or plugs must be made by the instrument-maker, and can seldom be made to fit.

It is not difficult to construct a tube out of gutta-percha by molding it over a small wooden plug shaped to correspond to the nasal cavity.

After the operation the plug, which will have to be worn for a number of weeks, need not necessarily be removed oftener than every second or third day during the first week, and less frequently afterwards.

In the treatment of a deflected septum the operation must be thoroughly done, and the after-treatment must be carefully attended to; thus we may relieve our patients of the manifold evils which attend occlusion of the nares, and, in a majority of cases, we may correct the distortion of the nose which results from bending of its supports.

ARTICLE IV.

WAS IT A CASE OF PROLONGED GESTATION? By S. F. BENNETT, M.D., Richmond, Ill.

On March 19th, I was called to Mrs. S., a fleshy, robust and plethoric woman, aged 24, and well advanced in her second pregnancy. She informed me that her last menstruation occurred in the latter part of the preceding June. She was positive as to the date, because certain circumstances had impressed it upon her memory that she was "all through" before the first day of July. The

attack for which I was called was one of cerebral congestion. On account of the general plethora, and for certain other reasons, I advised a bleeding, but the patient had a dread of the lancet, and I temporized with potass. bromide, and informed her she might expect her labor about the 8th of April, as, following the old rule and counting back three months from June 30, and adding seven days, it would give us about the date I had indicated. The attacks of cerebral congestion becoming more frequent and severe, the patient submitted to venesection, April 29th, with the effect of relieving the head symptoms. The labor finally came on May 7th, and occupied eighteen hours, the first hint of its approach having been the sudden discharge of the waters, without the slightest antecedent pain. The presentation was normal, and she was delivered of a lusty ten-pound boy. Does not an analysis of this case show that it is probable that the term of Mrs. S.'s gestation must have exceeded 270 or even 280 days considerably?

DURHÆMATOMA.

A woman, forty-two years of age, began to suffer from loss of memory and a depressed mental state. Later, the pupils enlarged, and she was slow in all her actions, but without motor disturbances. The vision became defective, especially the peripheric, and there was entire loss of smell. Death followed suddenly, with vomiting and collapse. The autopsy showed a hæmatoma in the dura mater, forming a sac, which was filled with liquid and coagulated blood on the right hemisphere, which latter was flattened and curved inward. The larger part of the central convolutions, and those of the frontal and temporal lobe, were compressed to a concave plane. It was remarkable that this compression in the motor region did not produce a more extended distribution of disease in the brain, but the coagulation of blood having only occurred after death, the pressure must have been not very great, the cerebro-spinal fluid being equally diffused, and flowing off partially in the venous sinus of the dura and partially through the lymphatic vessels of the head.—*Med. Chir. Centralblatt.*

ARTICLE V.

TIMELY CATHARSIS. By THOMAS N. REYNOLDS, M.D., Professor of Materia Medica and Therapeutics, and of Clinical Medicine in Detroit Medical College. (Read Before the Michigan State Medical Society, and printed in this Journal with the Consent of the Society.)

Cathartics are as old as the history of man. They were used in every age, and the most primitive people observed their utility.

Native fruits, barks, and juices of plants are still used by the American Indians, and crude people of other countries. They use them with remarkably good judgment, but do not largely understand their *modus operandi* or their varied applicability. That wider knowledge and fine appreciation of the *modus operandi*, and consequent proper use of these remedies, as of those of every class, remains not only for a higher civilization, but for its more scientific and well trained physicians.

Generally it is not difficult to know whether to give or withhold some form of cathartic, but sometimes it requires of the most experienced the best consideration. A severe cathartic many times may be fatal; and so may withholding it be at others. In other cases, recovery may be retarded by too frequent purging, and in more, retarded by withholding the appropriate cathartic.

We will refer a little here to the use, rather than the abuse, of these remedies.

1st. In habitual constipation, where diet, exercise, regular habits, nervous tranquility and other advisory measures fail, it is necessary to give some laxative cathartic. The strength of the dose will vary with almost every individual; but the mildest should be used, if sufficient to produce one daily action of the bowels. Sometimes a glassful of warm water before breakfast will suffice; but, again, it may be necessary to begin with a large dose of some active cathartic, and then gradually decrease it to

nothing at all. Generally this can be done; but sometimes cathartics cannot be wholly dispensed with for any great length of time. Then some sufficient cathartic should be taken as required; for though habitual constipation does not kill people suddenly, it does often kill people slowly. It is the important office of the lower bowel to remove from the body the unappropriated part of the food, and a large part of the excrementitious tissue waste. This failing, the kidneys are vicariously overworked, and from this undue irritation sometimes ultimately succumb to chronic interstitial inflammation. Every other organ and tissue also suffers from the presence in the blood of the reabsorbed excrementitious matter.

With regard to the kind of cathartic. Many think some one in particular is especially superior to every other, but that is not usually the fact. Any one of the scores of cathartics, taken in just sufficient quantity to produce the daily action, will generally accomplish the result as well as any other, provided the patient be not impressed with the paramount importance of having it do so at about a certain time. If this importance does become uppermost in the mind of the patient at a certain time of day, he will generally soon be able to live without any stimulus to the bowels but that of the mind, directing the necessary nervous energy to the performance of that function.

With most persons the morning is the best time. One of the excito-motor neurotic remedies is sufficient for some persons at times. Minims ii or iii of tincture of nux vomica in water, taken every hour for a few doses on rising, or the same of belladonna, will often suffice; and warm coffee is a very constant and often quite prompt stimulus to intestinal peristalsis. Enemas may very properly be used in some cases, but continued enemas are not generally an advisable mode in chronic constipation.

2nd. Many cases of very extreme dyspepsia, that resist all other forms of treatment, and are found to have been preceded and accompanied by constipation, are relieved at once, and ultimately cured by gentle catharsis.

Magnesii sulphas is often the best selection. I sometimes prescribe:

℞ Magnesii sulph.....ʒi
Acidi sulphur. dil.....ʒij
Aquæ ad.....ʒiv

Misce et Sig.—Teaspoonful in water before eating.

3rd. In almost every injury or acute disease not connected with the bowel itself, and involving a taking to bed, an immediate evacuation of the bowels is a leading essential, if an existing laxness be not ascertained. It not only relieves the alimentary canal, but wonderfully relieves that high arterial tension, seen in most subjects immediately after the injury or reaction from shock, or after the invasion of any acute inflammation or essential fever. It acts as a revulsant of nervous energy from the circulatory apparatus, and thus lessens the abnormal frequency and violence of cardiac and arterial contractions. It may not always be best to repeat it if high arterial tension remains or returns, and it may sometimes be better to give hourly minim doses of tincture of aconite, or veratrum viride, or large doses of quinine; but many will bear a second cathartic action well, and will be more permanently benefited thereby.

4th. In acute lobar pneumonia of the plethoric, a prompt and active cathartic is very important, when given early. The benefit is threefold: It acts as an ordinary evacuant, depletes the general circulation, and diverts in a degree local vasomotor nervous excitement from the pulmonary vessels. Cathartics are useful in the same stage and same class of cases of acute lobar pneumonia that so many of the older practitioners found benefited by the abstraction of blood.

5th. In acute congestion of the liver from dietary causes, whether temporary and mild or more prolonged and severe, nothing is so radically beneficial as an occasional cathartic. Strict limitation of the dietary to cool acid drinks for the first few days is very largely curative in itself; but if the pulse be full and bounding at the wrist, a sharp purgative will act like a charm. I saw this marked in a young man lately, with hepatic congestion

and an extreme supraorbital neuralgia. Of course quinine is indispensable in conjunction, if from malarial origin.

6th. In a case of trifacial neuralgia with severe and frequent spasmodic paroxysms, under my care at St. Mary's Hospital last winter, an active cathartic arrested the attack for forty-eight hours. The colon was full, however, and she had been on opium since the onset, three days before. Its return was not so severe, and she recovered slowly. Occasional anodynes sufficed when solid food was withheld. Solid particles excited a paroxysm when in contact with the palate.

7th. In acute rheumatism, particularly in robust subjects, an active cathartic in the early stage is wonderfully ameliorating to all the symptoms. In one young gentleman, the frequent subject of acute rheumatism, an active cathartic has, in a few instances, aborted the attack.

8th. In almost all acute head, or central, or cerebro-spinal symptoms, a brisk cathartic is likely to b every beneficial, acting in these mostly as a revulsant of innervation.

In active delirium from cranial injury, I have been much impressed with the benefit of an active cathartic. In January, 1874, George N., aged 14 years, received a fracture of the temporal bone, near the base, from the newly sharpened caulk of the shoe of a horse he was leading from the shop. His delirium was violent, and it was difficult to sew up his ear, which was cut nearly off by the same caulk that produced the fracture. It was impossible to give him a pill or anything but water. Since he drank with avidity, I conceived the idea of placing two drops of croton oil on water in a small glass. This he grasped at and drank, and in an hour and a half had several watery passages from the bowels. His delirium began to leave when his bowels began to move, and had disappeared when they ceased. It never returned, but his intellect was dull for some time after he got up. He forgot the names of things, and asked for beets as "some of those red things," at the table one day. Since this case, I have never forgotten the ease of giving a cathartic in the shape of croton oil in water, in active delirium, where patients drink with avidity, but become violent when desired to take anything else.

9th. In puerperal mania and puerperal eclampsia, a pronounced cathartic is important, and must rarely be contraindicated at the onset. In a plethoric woman it is indispensable if constipation exist, and I believe that nothing can then take its place in efficiency of service.

On July 19, 1878, I was taken by Dr. Wm. McDonald, then practicing in Detroit, but now practicing in Boston, to see a case of puerperal mania in a rather robust primipara. It was two and a half days after delivery, and after two days of unremitting puerperal insanity of the maniacal form. She was being forcibly held, screamed almost incessantly, and dashed from her everything but occasional drink. There was no uterine inflammation, the bowels had not moved, and we gave her three drops of croton oil in her next glass of water. A full evacuation followed, with two or three watery passages afterward. She grew gradually quiet, soon went to sleep, and had not any more symptoms of puerperal insanity.

In violent hysteria the benefit of a cathartic is often as great.

In puerperal eclampsia, a prompt and drastic cathartic, like three drops of croton oil, repeated, if necessary, will often arrest the paroxysms and cure the patient, unless too comatose and weak from frequent repetition. It is almost equally effective whether the eclampsia be from uræmic toxæmia, or from reflex nervous excitement. It acts in both by diverting vascular and nervous excitement from the head to the great mucous surface of the alimentary canal. In uræmia, it eliminates urea as well; and unless there be diarrhœa, it is a crime, then, to delay it a moment.

In two almost hopeless cases of puerperal eclampsia, of which I had personal knowledge, my brother, Dr. Henry J. Reynolds, after resorting to chloroform, etc., gave in each three drops of croton oil every two hours till nine drops had been taken before catharsis began. Purging soon followed, however, and in both recovery took place. These cases were reported to the Northeastern District Medical Society in 1881, and published on page 145 of No. 4, vol. v of the *Detroit Lancet*, and abstracted on page 554 of No. 4, Vol. II. of the *Quarterly Epitome of American*

Medicine and Surgery, supplement to *Braithwaite's Retrospect*, of the same year.

10th. In affections of the kidneys and skin, to speak in a general way, the bowels should be carefully kept sufficiently active. In many affections of each it cannot, of course, cure, but in none can it do harm, and in some, especially of the skin, a judicious diet and action of the bowels will effectually manage the malady.

I have had under observation for two years a generously living gentleman, aged 74, the subject of chronic eczema rubrum, in whom a single failure of the daily action of the bowels produces invariably, an increase of redness and almost intolerable itching, which nothing locally, excepting hot water, even temporarily relieves, but which is effectually removed by a resort to cathartics.

THE MORAL STANDPOINT OF PORRO'S OPERATION.

Porro's operation is largely practiced in Europe at the present time. As a preventive against pregnancy on account of small pelvis, it is immoral and illegal, Cæsarean section offering more success, and it deprives the women of their procreative power, which is punished in different countries by from two to ten years penitentiary. Cohabitation with castrated women is immoral according to the religious laws of Christians and Jews. There are but two causes which justify Porro's operation. 1. Degeneration of the soft parts which cannot be removed without causing certain death. 2. Total atresia of the vagina, which impedes the secretion of the lochia, and occlusion of the vagina by non-removable tumors.—*Correspond. Blatt f. Schweizer Aertze.*

DR. ROSWELL PARK begs leave to announce that he has accepted the chair of surgery in the medical department of the University of Buffalo, and will consequently remove to that city during the latter part of August.

Original Translations.

ARTICLE V.

ETIOLOGY OF CONVULSIONS IN CHILDREN. By PROF. ADOLPH KJELLBERG. Sweden: Translated by C. W. Johnson, M.D., Chicago.

The so called functional nervous diseases occur very frequently during childhood, and convulsive diseases are especially abundantly represented.

Rythmically, we separate convulsions into two general groups, the clonic and the tonic. Clonic convulsions are those where muscular contraction and relaxation follow each other closely, each action taking up about the same amount of time.

Tonic convulsions are those where the contractions follow each other so closely that the muscles have no time to relax between each contraction, but seem constantly rigid.

To the first group belong those convulsions that come on suddenly, usually in many muscles of the body, followed by a more or less complete unconsciousness in the patient. They attack, by preference, children, most frequently occur unexpectedly, with alarming symptoms; are hence of more than usual interest to the physician, and an explanation of their many different causes is of special importance to him. This is at times very difficult, and at times not at all discovered.

Here we frequently miss our guide that otherwise in complicated diseases solves the problem. I mean pathological anatomy. In how many cases of eclampsia and epilepsy that result in death does not anatomical pathology stand nonplussed and unable to explain the manner of the disease, in defiance of the most

thorough investigation? Not at all strange, because within the pathological science of the nerves, many processes take place that cannot be followed with knife or microscope.

Nevertheless, it is another branch of our science that has of late aided the clinical observer to explain obscure questions within the pathology of the nerves; it is the now persecuted experimental physiology. It is this branch we have to thank largely for our knowledge of nervous diseases, and to this branch we are chiefly indebted for what we know about the subject under consideration.

Brown-Sequard, Sciff, Kussmaul and Tenner have thus shown us that the point where convulsions originate is limited to the pons and medulla oblongata; Nothnagel has even located the "convulsive center" in the pons only.

Landois has found that venous hyperæmia in the brain lessens the heart-beats, and when the heart has become very slow general convulsions will result, just the same as in anæmia of the brain.

Hermann and Escher could, by completely stopping the venous blood flowing from the brain, produce general convulsions. Nasse has shown that through an increased amount of carbonic acid gas, and at the same time lessening the amount of oxygen, convulsions may be produced.

Physiology tells us that an increased temperature enhances the excitability of the nerve elements; likewise certain medicines, as strychnia.

Soltmann has shown that the motor centers discovered by Hitzig, are probably not to be found in children, but develop later; furthermore, the excito-motor nerves are wanting for the the large brain, expecially the cortex as the organ for judgment, for the will is in the new born child not yet capable of performing its function; the will has no power over motion; all motor expressions are without knowledge or consciousness, dependent on reflex actions. He has also shown by experiments that the motor nervous irritability in the new born is very small. He has also shown by direct experiments that the irritability of the vagus, as an inhibitory nerve, is less developed in the child than adult.

This is all of especial interest and very important to know. Those experiments indicate to us where the irritation must take place to induce a convulsive attack. We are instructed that convulsions can be induced by anæmia of the brain as well as by hyperæmia. We are taught that an excess of carbonic acid gas in the blood will produce the same result.

It explains to us the long known fact that in children there is a certain disposition to convulsions. This disposition is properly not dependent on any increased irritability in the sensitive or motor system, nor in the reflex center; but it is dependent on the fact that the brain of the child is more or less involuntary, and that it consequently cannot as yet through the will effect or subdue the reflex centers. But when experience further tells us that the new-born infant is not as disposed to convulsions as the child of a few months of age, and that this fact consequently is in conflict with what was just said regarding the so-called increased reflex irritability, then comes again experimental physiology to our aid, and explains to us that the irritability of the motor nerves in the new-born infant must be very small or insignificant.

What are the causes of convulsions in general, i. e. how do they come about? Now we must admit that they come about by an irritation of the place wherein convulsions originate. Experimental physiology has shown us this place to be the medulla oblongata and the pons, or, according to Nothnagel, the latter only. An irritation here must take place; but to bring about a convulsion, must the irritation be abnormally exalted, or the irritability in the so called convulsion center increased, or both? These conditions may occur simultaneously. The irritability may be direct, i. e., affect the convulsive center directly, or it may be an indirect or reflex irritability. Therefore, convulsions are divided into direct and indirect, central and peripheral, symptomatic and sympathetic, etc. Another category includes the so-called idiopathic convulsions; they come seemingly without motive and we are unable to discover any cause. But causes, of course, must exist, although we cannot discover them, and the more our science grows the fewer must idiopathic

convulsions be, until they are things of the past. I, therefore, do not take them up here.

My point of view being clinical, I will divide convulsions into symptomatic and sympathetic. The former corresponds to the so-called direct or central, the latter to the so called indirect or peripheral.

Symptomatic convulsions are those that take place at the beginning of a disease, or during its course, by direct irritation of the convulsive center. This generally happens as a consequence of pathological changes within the blood-vessels, hence this form of convulsions is sometimes called hæmatogenic.

Sympathetic convulsions are those that take place by some irritation of the sensitive nerves; this is conveyed to the convulsive center and a convulsion is produced.

This division of convulsions is not at all satisfactory, for, taken as a whole, several causes coöperate, as we will see hereafter.

Symptomatic convulsions are produced partially by a *disordered circulation*, and partially by a *change in the blood itself.*

Disordered circulation is the most common cause, by producing a sudden anæmia of the brain. If, for example, the circulation of the blood to the brain is suddenly arrested (i. e., in both carotid and vertebral arteries), the phenomena will be as follows: The pupils at first contract, then dilate; the jaws are closed, the eye-balls rotate upward; breathing is difficult and short, later, slow and deep; then violent general convulsions take place with loss of consciousness. If circulation is now again permitted, the subject will be restored to normal state. Such an experiment has been performed by Kussmaul and Tenner. It shows us the whole group of symptoms, and it also shows us the cause to be anæmia of the brain. This anæmia must be suddenly produced, however, to produce a convulsion. Kussmaul and Tenner have shown three things as necessary—viz., loss of blood (to brain) must be large, must occur at one time and suddenly, and the subject must be in good condition.

An anæmia of the brain that has been developed by degrees will not produce convulsions.

An anæmia of the brain to have the power of producing convulsions may be caused as follows:

(*a*) *A sudden loss of blood*, something we often see happen during childhood.

(*b*) *Sudden and severe loss of juices*, as profuse vomiting and diarrhœa.

(*c*) *Arterial contractility.* This certainly plays an important role, by causing anæmia of the brain. For example, psychical impressions, especially those extreme in effect, such as fright, wrath, etc.

It acts probably by its effect and influence on the vaso motor nerves, and causes arterial contractility, anæmia and, lastly, convulsions. Sauvages mentions a case where a child, while in great anger (because it did not get the food it liked), went into convulsions. Swicten reports a case where a child became frightened at a dog; afterwards the child would go into convulsions by seeing a dog, or even hearing one bark. Its is also possible other causes may produce convulsions, such as fright, and this again may produce overaction of the heart, with increased flux of blood to the brain.

(*d*) *Compression of the skull* in infants, pressure on an extended fontanelle, pressure on the back of head in cranio-tabes may all produce anæmia of the brain (cortex), and thus convulsions occur.

(*e*) *Anatomical changes in the brain*, as extravasation of blood, softening, growths, etc., sometimes cause convulsions; just how it is not easy at all times to say. It may be caused by direct irritation of the convulsive center, as in hæmorrhage or growths, but the probability is that by an increased pressure anæmia takes place.

(*f*) During the course of disease, not infrequently there is anemia of the brain, as in hydrocephalus, acute brain diseases, inflammations, fevers, etc.

Just as anæmia of the brain may cause convulsions, so may hyperæmia of the brain be the cause, if not direct, nevertheless indirect. An explanation will probably be in its place, as it may seem curious that two conditions, so different from each other, may produce the same phenomena. Let us consider the circulation, especially that of the lymph within the brain. Through late researches by Key and Retzius, so essentially valuable,

we have received an accurate knowledge of the lymphatic vessels in the brain and its membranes. We now know that there is an uninterrupted connection between the sub-arachnoidal spaces of the brain and spinal column, the epi-cerebral spaces and ventricles, and also between the peri-vascular spaces within the brain. Key and Retzius have shown us, that the lymph vessels follow the blood-vessels in the large hemispheres, as well as in the large ganglia (optic thalamus, corpora striata, etc.). The skull forms a closed and firm cavity that will not expand; the contents consist of the brain, blood and lymph vessels. When the circulation is normal, the same amount passes continually to the brain.

In the infant where the sutures and fontanells are yet open, and where the skull may be somewhat expanded as well as reduced, the arterial circulation can be increased somewhat, without increased pressure; so may the venous circulation exceed the arterial without diminishing the pressure within the brain. As the heart's systole and pulse-waves advance must an expansion of the arteries occur, and for the time being an increased amount of blood enters; likewise during expiration the venous blood is hindered and a slight venous stasis results. When the skull forms a firm space and the brain cannot be essentially compressed, then a regulator for the circulation must be found; this regulator is the cerebro-spinal fluid. When the blood current rises, or the venous is hindered, then the cerebro-spinal fluid yields and gives room to the blood. This can only take place within a certain degree; if the arterial current is considerable, then the fluid in the perivascular spaces cannot yield sufficiently. What happens then? Counterpressure, and the consequence is that the capillaries are compressed.

The greater the hyperæmia, the greater the counterpressure; the blood wave cannot be forced to its terminus; consequently, there is a lack of blood in the capillaries—an anæmia in the cortex of the brain, and large ganglia is the result.

During venous stasis, the fluid around the veinous and perivascular spaces is driven back, the pressure on and about the perivascular spaces increases, the arterial wave diminishes, the blood is not driven forward, and thus it happens that the arterial

blood supply is diminished; and thus it is clear that there is an anæmia of the capillaries of the brain. This gives us an explanation of experiments conducted by Landois showing that a venous stasis may produce a convulsion. We see, also, that hyperæmia and a venous stasis may produce the same result, viz., anæmia of the brain and then convulsions as a result.

A flux to the brain occurs in children very often, more so than in adults. The flux is dependent on the number of heart contractions. We all know how easily and suddenly the function of the heart is aroused; an emotion, a fever, and the heart is at once overactive, usually the younger the child the greater the action. This fact is in harmony with Soltman's view that the younger the child the less developed is that system of nerves (vagus) whose function is inhibitory.

We know how easy a sudden fluxion to the brain may be produced in children, as in many acute diseases, especially fevers, and we have seen that this hyperæmia can produce anæmia of the cortex of the brain; then we can easily understand why convulsions in similar cases do occur, and also how they are produced.

The ease with which hyperæmia in the infant is produced would probably more often bring disturbing brain symptoms, were it not compensated for by the possibility of the skull expanding through the open sutures and fontanelles, which has just been mentioned.

Venous hyperæmia of the brain occurs quite often in children, as in croup and laryngismus stridulus; also in diseases of the lungs, whether hereditary, as atelectesis, or acquired, in hereditary and acquired defects in the heart, etc.

In all these and similar cases venous hyperæmia may cause anæmia in the cortex of the brain. This may also occur during disturbed digestion, constipation with considerable generation of gas in the intestines; this forces the diaphragm upwards, and impedes the circulation of blood to and from the brain. I also wish to mention that a protracted fluxion of the brain produces a venous congestion in it, because the capillary vessels become compressed from the condensed cerebro-spinal fluid and the *vis a tergo* in the veins is diminished, and the blood flows more slowly.

The second group of symptomatic convulsions are those that

are caused by a *change in the blood.* This is often combined with disturbances in the circulation, hence this group may have several co-operating causes. Among the changes in the blood that cause or promote convulsions are: 1st. *An abnormally increased temperature.* That this plays an important role among the causes of convulsion, especially during childhood, is scarcely questionable. The explanation of this fact is that the excitability in the nerve element increases by an increased temperature.

In a sudden case of fever in a child, especially an infant, it is often announced by a convulsion. This corresponds to the chill in the adult. Especially is this the case in the croupous inflammations of the lungs and pleura. It is not only the increased temperature that in a suddenly developed fever produces convulsions, but increased body heat. There is as a rule an increased action of the heart; this produces a fluxion to the brain, and this again, as we have just seen, many result in a convulsion. In the croupous pneumonia it is probably the impeded respiration that produces venous hyperæmia, and this in proportion contributes to a convulsion. Just so in pleurisy; but here there is intense pain which no doubt contributes to convulsions, and this may be partially explained by reflex action. The same is the case, for example, in otitis accompanied with convulsions, where certainly the pain is of great importance. We see, consequently, that in similar cases many causes co-operate to produce convulsions. Such is the case with another kind of blood change, viz.:

2nd. Infectious Diseases. Scarlatina, morbilli, variola, cerebro-spinal meningitis, intermittent fever, etc., are not infrequently accompanied with convulsions during the early stages. In those diseases we must assume that it is the qualitative blood change that reacts on the nervous system. But even if this is the chief cause *i. e.*, the changed condition of the blood, producing disturbed nutrition in the nervous system, we must still recognize other causes, viz.: increased temperature, which appears early, also disturbed circulation within the brain.

Consequently we see that many causes may co-operate to produce convulsions during the commencement of fevers. These convulsions occurring during later stages are most frequently

caused by an anæmia of the brain from some cause or another, as just mentioned.

3d. Direct intoxication, through mineral and vegetable poisons; to these belong lead poisoning, atropia poisoning, tobacco enema, poisonous sponges, alcohol,* etc. To this class belongs poisoning through the inhalation of gases such as carbonic acid gas.

4th. Such changes in the blood, where a poison is taken up from the system, as in pyæmia, septicæmia, puerperal infection, etc. In these cases, as in direct poisoning, we must accept that the poison acts as an irritant to the nervous system, perhaps directly on the convulsive center. Here belongs carbonic acid gas poisoning, caused by a disturbed respiration, and the blood thus becomes overcharged with carbonic acid; this irritates the nervous system, and a convulsion results. In uræmic convulsions, whether they are caused by an increased amount of excrementitious material irritating the nervous system, or if caused by an acutebrain disease producing an anæmia of the cortex of the brain is not yet decided.

Here we may also mention changes in the milk of nurses and mothers; we may, indeed, include intoxications produced by sudden effects through the mind, viz: fear, wrath, etc., which in the child may produce convulsions. In what the change or intoxication of the milk depends is not known, but many cases of convulsions in children, originating from such causes are on record. Petit Rordel mentions a case where the mother, shortly after being suddenly angry, put her child to her breast with the consequence of convulsions. Bouchut mentions a similar case. Underwood has reported a case where a man was to make a visit to a family; just as he came inside the door he fell to the floor and died. The lady became very frightened, soon after put her six months old child to her breast, and within one hour the child had convulsions, alternating with coma, lasting thirty-six hours, then recovered. Saltman mentions a case somewhat similar.

The *Sympathetic* convulsions are those that are produced by

* Solman mentions a case where an infant raised by a wet nurse had frequent attacks for eight days without finding a cause. Finally a bottle of brandy was found in her bed. She was at once discharged and a new one accepted, and the child had no more convulsions.

reflex action. They may be produced by any irritation of the sensitive nerves of the skin or mucous membrane. They are very common during childhood, and probably induced by an increased irritability of the sensitive nerves, partially through a diminished or less developed power of the reflex inhibitory center of the brain.

Here belong, for instance, convulsions occurring from burns of the skin, large superficial ulcers, extensive intertrigo, etc., pointed foreign bodies that irritate the nerves of the skin as needles. Siebenhaar mentions a case of a child, nine years old, suffering from convulsions who was ordered a bath, when on taking off the clothing, a needle was discovered penetrating into the small of the back, deep in the flesh. The needle was removed, and convulsions ceased.

Irritations of the membrane of the ear, whether inflammatory or a foreign body in the auditory canal, may produce convulsions; also foreign bodies in the nasal passages, and, furthermore, an irritation of the kidneys or ureter, through renal calculi, not uncommon in children. Demme mentions a case of a boy, one year old, with hereditary constrictions of the urethra, causing great obstruction in urinating, which often produced convulsions. The urethra was dilated, and the convulsions disappeared.

The largest proportion of convulsions, however, are produced through an irritation of the mucous membrane of the stomach and intestines. That this cause produces convulsions is one of the oldest-known and acknowledged facts. We see them produced by dyspepsia, colics, intestinal catarrhs, gastro-enteritis, constipation, etc. In practice, we find many cases where the cause is hard to explain but after a thorough search we can generally find some ailment in the intestines; most common is chronic catarrh. This treated and improved, the convulsions will disappear. Especially has this been the case in rachitic children in my practice.

One question much disputed, and yet an open one, is, can convulsions be produced by irritation from worms? Most authors regard it as perfectly natural that such a case exists. At one time it was regarded as the cause in most cases of convulsions; other authors, though few, deny any relation between

the presence of worms and convulsions. To judge between them is difficult, for on the one side we see cases happen where children had worms, which through anthelmintics had been destroyed, and no convulsions followed. I have seen a child who discharged 100, others 50, 60 and 70 worms, without ever having had convulsions. On the other hand, cases are reported where we must accept, that convulsions are produced by their presence in the intestinal canal, and consequent irritation of the sensitive nerves.

Cormak mentions a case in a boy, seven and a half years of age, otherwise perfectly healthy, suddenly attacked with convulsions, which were cured after administering calomel and santonin, which discharged many ascarides. I have not seen a similar case. I therefore believe that we can not altogether disregard worms as one of the causes of convulsions, but we must also be careful in a case of convulsions, where worms are inhabiting the canal, to not too suddenly come to a conclusion, but search after other causes, which otherwise may be passed by.

Another question that also takes us back to antiquity, and on which modern thought yet can not agree is, can convulsions be produced by dentition or not? Among the old authors the majority acknowledge it to be a common cause, but we find many claiming convulsions to be independent of dentition, and thus, we may say, stands the question to-day. Most claim that convulsions may be produced by difficult dentition; others deny it. Dentition is said to be a phyisological process, and as such could or should not cause a dangerous complaint. Let it be so. Is there not any other physiological process that is accompanied with danger to an individual? Our very first entrance into this world gives us at once an answer to this question. Dentition is, however, a process, that, in some children, without doubt, is combined with pain, and this at a period when reflex action is easily produced; and that partially through the last branches of the dental nerves, and partially through the end nerves in the swollen gums, convulsions by reflection may be produced, appears to me not at all impossible. Physiology, indeed, tells us that reflex actions are easier produced from the end nerves than from the trunk; and, when we see cases, just before teething, otherwise healthy, with repeated attacks coming on, ceasing as

protruded, only possible to begin again while cutting another tooth, and impossible to find any other cause, then I, at least, can not neglect to place dentition and convulsions with each other as cause and effect. I remember a case, now many years since, and then I was convinced, that dentition could not cause convulsions. I was called in consultation by one of my colleagues to see a child who had had several attacks. The parents, especially the father, were very calm, saying that the convulsions now, just as once before, probably depended on dentition. I did not believe it, but made as thorough search as I could for the cause, but in vain. After one or two days, during which time the convulsions continued, a tooth protruded, and the convulsions ceased. Other cases could be cited. What otherwise concerns dentition, we should remember that hereditary disposition plays also an important part. What, then, will not produce convulsions in one child, may very easily in another. It is very difficult, however, to certainly decide a case of convulsions as to cause, as many causes may be found. The one nearest at hand is irritation of the mucous membrane of the intestine, as it is just at this time that dentition takes place, when intestinal catarrhs are so common, and that this alone is capable of producing convulsions, we have just shown.

I mentioned disposition and hereditary tendency to convulsions. This topic also deserves to be touched upon in connection with causes to convulsions. Without doubt there is in certain families a disposition to convulsions of a hereditary nature. On what this disposition, this "convulsability," depends, we know not; whether from a disturbed nutrition within the nervous system, or some anomaly in the blood that affects the vaso-motor system; but it is, nevertheless, a fact supported by many reported cases. Duclos reports that a married lady, in her childhood, had suffered from convulsions up to her seventh year. They then ceased, but there remained a deviation in her mouth, and the eyelid of the left eye was prolapsed. She had had had nine brothers and sisters, of whom six died in convulsions. She was herself mother to ten children; all have had convulsions; six died; of these, five were under two years of age, and the sixth at three years.

Her first-born got convulsions after nursing when the mother shortly before had been angry.

Lastly, in childhood, and, of course, in older patients, cases of convulsions may occur which are simulated.—*Hygiea-Medecinsk och Farmaceutsk Mauadskrift.*

EXPERIMENTAL STUDIES ON INTOXICATION WITH MERCURY.

M. Prevost has published his experiments on the action of mercury on the several organs. To avoid the irritation of the gastro-intestinal tube by mercury introduced into the stomach, the hypodermic injections have been recommended. But Prevost proves that these injections, wherever they are made under the skin, will provoke the same lesions in the intestines. These lesions are especially found in the cœcum and the large intestines, the mucous membrane of which is found to be in a state of hyperæmia, and covered by ecchymotic plaques. Walter Hay has recently proved that hypodermic injections of mercury cause irritation at the point of injection, with reflex irritation on the secretory and vaso-motor activity of the intestinal canal, if the injection is made in a part of the skin which is in nervous relation with the abdominal contents. Mercurial albuminuria has been thoroughly studied, and researches have shown a calcification of the tubuli in the kidneys. Experiments have been made on several animals, and recently, in a case of poisoning by acid nitrate of mercury, the same phenomena have been found. In certain cases of hydrargyrism, death is caused by total suppression of the renal functions. Osseous alterations have also been found to be due to application of mercury, and M. Prevost found decalcification of the bones which provoked, in some cases, mobility of the epiphyses of the long bones on their diaphyses. To prove that decalcification of the long bones exists, and goes hand-in-hand with the calcification of the tubuli in the kidneys, he extirpates one tibia of the animal before giving the mercury.—*L'Union Médicale.*

Society Reports.

ARTICLE VI.

AMERICAN SURGICAL ASSOCIATION.

MR. EDITOR:—The fourth annual session of the American Surgical Association convened in Cincinnati, Thursday, May 31st, ult., with S. D. Gross, M.D.; LL.D., D.C.L., Oxon, LL.D., Cantab (emeritus) in the chair, and a few number of members present. The president delivered the following address:

FELLOW-MEMBERS OF THE AMERICAN SURGICAL ASSOCIATION: Allow me, as your presiding officer, to congratulate you upon your safe arrival, and to extend to you a cordial welcome to the Queen City, the center of medical education in the Buckeye State, the residence of eminent medical teachers and practitioners, and repository of the ashes of great medical men, who, during their laborious lives, added luster to the profession and left behind them undying names. We have come here not as pleasure-seekers, but as a great body of men bent on earnest work in the interests of our great and noble calling. It is a source of rejoicing to me, as I am sure it is to you, that since our last meeting our ranks have not been invaded by the fell destroyer. On that occasion it was my meloncholy duty to announce to you the demise of some of our fellows, all men of distinction and great usefulness. The meeting upon which we are about to enter cannot fail, if we may judge from our programme, to be of unusual interest and that our deliberations will be conducted with that celerity and harmony of feeling which has hitherto characterized it, I am safe in predicting. Allow me in concluding this brief salutatory, to direct your attention to a proposed alteration of the constitution, to increase the number of fellows from 100 to

150. The change is an important one and merits your serious consideration. I also respectfully suggest that the acting council be increased from four to seven, so as to impart greater efficiency to its work. Finally, it appears to me wise to take action upon any proposed amendments to the constitution and by-laws, on the last day of every session, instead of letting them lie over for one year as now provided for.

Minutes were read and adopted.

In the absence of Prof. E. Beverly, San Francisco, Cal. and Prof. H. F. Campbell, of University of Virginia, members of council, the chair appointed Prof. E. M. Moore, of Rochester, N. Y.

Treasurer reported $2,070.21 on hand.

On motion, council organized to act on applications for membership.

Prof. Gross being both President and first on the programme to read, gave way to the following paper:

I. Have we any Therapeutic Means as Proven by Experiment, which Directly Affect the Local Processes of Inflammation?

By C. B. Nancrede, M. D. Philadelphia. He spoke of blood-letting, more particularly of local blood-letting, the reckless abandonment of which he deplored.

Prof. Campbell, of Augusta, Ga., spoke of it as the lost art; said if it were not for blood, we would have no swelling. Recommended his students to use the lancet much more than formerly. In puerperal convulsions, morphine first then the lancet. He had not bled one-half so often as he should have done.

Dr. Moore said: Paper has much merit, especially as to its scientific exposition of the *modus operandi* of blood-letting.

Dr. Busch who had made his fame from the frequent and successful use of the lancet, fell from its use in pneumonia. In an epidemic of pneumonia where he had practiced, the lancet was used in every case and every patient died; changed to whisky, beef tea and quinine and almost the exact reverse was the case. With perfect diagnosis and absence of anything like typhoid symptoms, the lancet should be used more frequently.

Dr. Post, N. Y.: Can not attach too much importance to gravity in inflammation. Blood-letting should be repudiated

in asthenic troubles. In persons of good habits and traumatic conditions, blood-letting is of much use.

Dr. Kinlon, of Charleston, S. C.: Blood-letting has always disappointed me in inflammatory affections and I raise my voice against it.

Prof. Gunn, of Chicago, said: "There are inflammations, and there are inflammations." Must be careful as to diagnosis. In some cases blood-letting is beneficial, others not.

Prof. Brakes, Nashville, Tenn.: In many cases general blood-letting is successful in local disorders and vice versa.

Prof. Gregory, St. Louis: Blood-letting locally is rational in local inflammation. Cannot tell just what vein to open. Is not useful in idiopathic inflammation, but is an injury. We should meet and combat the cause of inflammation. I am one of the old doctors, who come from the time of bleeding. Have seen epidemics of pneumonia where many have died under the lancet, have seen those who have died without the lancet.

Prof. Dawson, Cincinnati: If it be so great a remedy, why have we abandoned it? Does any one here bleed a patient a year? Why advocate what we do not practice? Drugs will accomplish the same thing.

Dr. Nancrede: I have not been thoroughly understood. Have said diagnosis must be accurate, and advised bleeding shortly after or while stasis had taken place. The instant there is tissue change then it is too late. I spoke of surgical inflammation, did not speak of pneumonia etc. I did not recommend blood-letting when heart is feeble. The loss of a night's sleep, a slight diarrhœa, reduces blood-cells one-twentieth. I have no doubt mine are reduced as much from reading this paper. It requires only a few hours to replace them.

II. Lister's System of Antiseptic Wound-treatment, *versus* its Modifications. By B. A. Watson, Jersey City, N. J.

This paper took decided grounds in favor of Listerism.

A number of fellows spoke against Listerism and said that it was not followed by a majority of the practitioners in their cities.

Dr. Nancrede proposed to follow the essentials of Listerism some time yet.

Dr. Prince, Jacksonville, Ills., spoke in favor of Listerism.

Dr. McGraw, Detroit, reported a case which he had lost by carbolic acid poisoning.

Dr. Dawson, Cincinnati: The great thing that Lister has done is to teach us cleanliness. To Dr. T. M. Markoe belongs great credit for giving us thorough drainage.

III. Re-amputation at the Hip Joint; Secondary Hæmorrhage; Ligation of the Primitive Iliac Artery; Remarks on Ligations; Re-amputation at the Hip Joint for Osteo-Myleitis; Hæmorrhage on 6th day; Ligation of Primitive Iliac, by John H. Packard, Philadelphia. The common femoral was tied at the time of the disarticulation.

Dr. Jerfield, Boston, spoke in favor of learning to tie arteries "with the eyes toward heaven."

Dr. Post thought this very hazardous.

Dr. Connor, Cincinnati, reported a case where he had amputated in the upper one-third of thigh, found bone diseased, split down, nucleated the bone and left a good stump. Man recovered nicely. Thought by the use of Furneaux Jordan's method of amputation, the Esmarch bandage could be used, and there was no use for it in ligature of iliac.

IV. An anomalous case of Traumatic Aneurism. By Dr. J. Richardson, New Orleans. Bullet wound shot on inner side of leg; ball passed upward and out. Six months later, noticed enlargement between cicatrices. Employed compression, then ligated femoral under carbolic acid spray. Two years later, found circulation stopped in foot and leg, and mummification setting in. Amputated above middle of thigh, followed by gangrene. The photographs of the aneurism were shown. Writer dwells on "failure of leg to effect coagulation." No communication of aneurism with artery below. Dark matter of blood. Expressed the opinion that it was an arterio-venous aneurism. Read an additional paper on "Trephine in connection with Emphysema."

Dr. J. Ewing Mears, Philadelphia, spoke of his manner of passing drainage tubes through thoracic abscesses by means of hernia needles.

Dr. Campbell, Augusta, Ga., thought the trephine a very awkward instrument to use on ribs: and recommended the chain saw.

Dr. Richardson said: Had recommended trephine only in traumatic emphysema with fistula. Trephine, a very neat instrument and operation made in less than a minute. The chain saw jogged too much. Trephine should be about large enough to take up all the rib.

Adjourned to the amphitheater of the Medical College of Ohio, where Dr. Packard showed his method of ligating the primitive iliac, also his method of colotomy.

Association went into executive session for the election of new Fellows.

V. "On the Value of Early and Late Operations in Surgery." By S. D. Gross, Philadelphia. Spoke of the value of early operations in tumors and malignant growths. Importance of surgical interference in morbid growths. He said that diagnosis was a high art, and the majority of the profession were not sufciently good in it. He thought the word charlatan was not used widely enough in its sense. There are many knaves who treat malignant growths. In carcinoma, the knife cannot be used too early. All benign growths of rapid growths cannot be excised too soon. In case of repeated operation on carcinoma of the breast and its return, the knife should sweep away all the involved tissue; and the wound be treated on general principles.

Dr. Port spoke of the importance of removing growths not malignant. He recommended the removal of all such growths where not contra-indicated.

Dr. Moore said he really had nothing to say. There was nothing additional to say.

Dr. Gregory, of St. Louis: In tumors the change of cells was greater in the early part of the development than in the later. Irritation does not originate tumors. I am as successful in going into the peritoneum, as those I read of. Delay operations when the peritoneum is involved, otherwise operate as early as possible.

Dr. Gross did not speak further.

VI. Dislocation of the Astragalus. By Basil Morris, Washington. Spoke of the rarity of the case. Gave history of its occurrence in his own person and read answers from surgeons in regard to their experience and cases. Gave the authorities as

advising; some reduction, some exsection, others attempts at reduction, then if failure excision. In his case, reduction was effected. He recommended gentleness in manipulation for reduction.

Drs. Moore, Werst, Dawson and Gunn had seen cases which they reported.

VII. "Excision of the Tarsus." By Dr. P. S. Connor, Cincinnati. He compared excision favorably with amputation. Claimed that it would tend to eradicate the disease and that the patient after recovery would have a very serviceable foot. The subject was treated with spirit and thoroughness, and the Fellows declined to discuss a subject already so admirably handled.

VIII. Trephining the Sternum for Removing Foreign Bodies from the Anterior Mediastinum. By S. Marks, Milwaukee, Wis. Related a case of gun-shot injury received during the late war. Ball remained behind the sternum until '70, when it was first discovered and removed by trephining. The pulsation of the pericardium could be plainly seen at the end of the operation. An interesting point was, that it showed how long foreign bodies could be borne near the heart.

IX. "Some questions with reference to Intracapsular Fracture of the Femur." By E. M. Moore, Rochester, N. Y. This elaborate paper was the result of extended observations on the human subject, a large number of specimens being produced by the reader.

X. "Fractures of the Neck of the Femur, with special reference to bony union of the Intra-Capsular Fracture." By N. Senn, Milwaukee, Wis. This gentleman produced a paper prodigious as to its amount of patient work and scholarship. It was replete with experiments on lower animals and decidedly "German" in its character. This and the preceding paper were discussed together, and, while all praised the skill and determined energy of Dr. Senn, yet they gave the preference rather to the paper of Dr. Moore, so full of practicability. Each paper after its kind, was certainly difficult to excel.

Dr. Moore said he had seen a case where a vascular frenum extended upon the head of the femur sufficient to give it enough nutrition to cause bony union, but he thought the case of Dr.

Senn's, reported to be a case of bony union, was not surgically a fracture within the capsule.

Dr. Campbell thought that the neck of the femur would not unite if it was held together. Thought we had better retain the old treatment of these "old broken hips."

Drs. Moore and Senn answered their critics briefly.

XI. "Nephrectomy for Carcinoma and partial Cholecystectomy for Gall Stone in the same subject." By S. W. Gross. A report of a case in brief and pithy style.

XII. "Operation for Permanent Closure of the Jaws. By J. Ewing Mears, Phila. Suggested excision of portion of ramus, condyloid and coronoid processes.

Dr. McGuire reported a similar case.

Dr. Port spoke of mechanical motion when there was any degree of extension. When there was no movement at all, then incision must be made.

XIII. "Removal of Meckel's Ganglion for relief of Trifacial Neuralgia with report of cases." By A. Vanderveer, Albany, N. Y. Reported three cases in which the operation was done; and wrote in its favor.

XIV. Dr. Campbell spoke in favor of the removal of the superior dental nerve.

Dr. Connor, in favor of resection of the infraorbital nerve.

Dr. Dawson reported a case of a young man, where he had removed nerves a half a dozen different times, each time followed by relief of pain for a season, then recurrence in a different quarter.

Dr. Vanderveer said that he had so far failed to find a reason why Meckel's ganglion should be removed, but the authorities recommended it, and he thought no one had ever had better success than that had in one of his cases.

XV. "Splint for extension of Wrist Joint." By J. M. Barton, Phila. Exhibited and explained.

XVI. "A Rectal Obturator." The instrument was exhibited and a paper read on the subject.

The Committee on Nominations, after expressing their deep regret at the positive refusal of Prof. Gross to act longer as pres-

ident, reported the following names for election to the respective offices:

President, Dr. E. M. Moore, N. Y.

First Vice President, Dr. W. W. Dawson, Cincinnati.

Second Vice President, Dr. C. H. Maston, Alabama.

Secretary, Dr. J. R. Weist, Richmond, Ind.

Treasurer, Dr. J. H. Packard, Philadelphia.

Recorder, Dr. J. Ewing Mears, Philadelphia.

Council, Dr. P. S. Connor, Cincinnati.

Recommended the next meeting to be held at Washington, D. C., on the Wednesday preceding the meeting of the American Medical Association.

Report adopted.

A motion to have the applications for fellowship made directly to the Association, not through Council, lost.

On motion a vote of thanks was tendered the Reception Committee of Cincinnati.

On motion it was resolved that the Association have a banquet at each annual meeting at its own expense.

Drs. N. P. Dandridge, Cincinnati, Christ. Fenger, Chicago, W. E. Taylor, California, W. F. Peck, Davenport, Iowa, J. W. McCairn, Pittsburgh, and Y. M. Markoe, N. Y. were declared elected Fellows of the Association.

Dr. Kinlon moved that the names of the gentlemen signed to a paper criticizing the Code of Ethics of the American Medical Association, be referred to Council with instructions to report before the adjournment of this meeting. Carried.

Council reported as follows:

Resolved: That the Secretary be instructed to address to each of the members alleged to have criticized the Code of Ethics of the American Medical Association, requesting them, if the allegation be true, to resign. Carried unanimously.

A motion to increase the limit of the number of Fellows from 100 to 150, was lost.

A resolution of respect and esteem for the retiring president was offered by Dr. Dawson. Carried.

The President made the following closing remarks: I congratulate you on the success of the 4th annual meeting of the

American Surgical Association. I have tried to do all with impartiality. Now, as I am about to retire, I am sure the Association will be safe in the hands of my successor. I have no greater ambition than to hold your affection and esteem. I believe we have formed a successful institution and grounded on the right principle, and when I die, I hope that you will carry it on well. God bless you. Remain faithful to the interests of your profession to the end.

Adjourned, June 2d, 6 p. m.

Tne American Surgical Association is a noble-looking body of men. One can not look at its assembly and not see men of intellect. They are conservative surgeons. Not 50 per cent. of the applicants for fellowship were successful and a motion to increase the number was lost unanimously. The first 100 is not yet filled.

At a banquet given on the 2d day of the session, at the Gibson House, there were not a half dozen who were not members. A mentionable feature was the respect paid by the association to its president. Your correspondent has never seen its equal. The papers were so long and numerous as to preclude the possibility of much discussion, otherwise the 4th annual session of the American Association was regarded an eminent success.

E. S. McKEE, M. D.

June 2, 1883. Cincinnati.

ARTICLE VII.

CHICAGO MEDICAL SOCIETY.

The Chicago Medical Society held its semi-monthly meeting on the evening of June 4th, with Dr. D. W. Graham, the president, in the chair.

The following gentlemen were elected to full membership: Dr. N. S. Davis, Jr., Dr. J. M. Pilsbury, Dr. D. F. MacPherson, Dr. N. E. Rice.

After which Dr. R. Tilly exhibited under the microscope numerous bacteria removed from a (decayed) tooth while the patient was present before the members. The patient was deaf

and the bacteria were present very extensively in his mouth. The doctor stated that the fungi may pierce the body of the teeth, but in the case before us this evening, he was unable to decide positively whether their presence was the cause or effect of the dental decomposition, but inclined to the former opinion. He had recently discovered them while treating the patient for the deafness with which he is afflicted.

In the discussion which followed Dr. W. W. Allport participated. He said the old theory for decayed teeth was acids acting on the lime of the teeth, but later theories now advanced as causes for dental decay were the "chemical," the "vital chemical," the "parasitical" and "electrical" theories. Instances were cited under his observation where the eye-sight and hearing were affected by decayed teeth, and the filling in a tooth, and where the removal of one or the other exciting cause remedied the eye or ear trouble.

Dr. Alonzo Bryan then presented an interesting paper on the subject of "Stammering," which is recognized as a functional disease. Several pathological points of paramount interest were brought to notice, in which the literature is meager, and the following extracts upon this topic were taken:

"This pathological condition may occur in persons of perfect physical integrity. It is the result of mal-habit, or mal-education of the nerve centers, presiding either immediately or remotely over the organs of articulation. The act of stammering usually consists in the attempt of a person to articulate an elementary sound while the vocal organs remain in the position proper for the utterance of the sound which precedes it in the same syllable. A traumatic lesion of the mouth may temporarily disable a person in certain forms of utterance. If so, these cases are confined usually to a single letter, and often to only a single word. The most stammerers are capable of stammering upon every letter of the alphabet and upon every word in the language. At times momentary vertigo may ensue, and tetanic action of a number of the facial muscles may occur simultaneously in the extreme stammerer. Stammering occurs vastly more often in children than in adults, more frequently, too, in the male, and more persistently in those of small intellectual cali-

ber, and disappears more readily in persons of high or good intellectual capacity. Fear will enhance the difficulties of the stammerer, and so will decrease of the rapidity of nervous conduction, as cold. During the hot weather of summer, stammerers are often greatly improved. Buoyancy of spirits affords relief. Consciousness of the presence of superior and arrogant persons plunges the common stammerer into difficulty. The presence of a benign superior aids him. Vigorous mental excitement usually aids and relieves the stammerer. A sense of heartfelt joy often does away, temporarily, with all difficulty of utterance. Illustrative examples of lingual impediments were cited, of lecturers, of young ladies, and of himself, who used to be an inveterate stammerer, which were dwelt upon quite minutely. Among the causes of stammering mentioned were antecedent disease and pertussis; children recovering from extreme adynamia in acute diseases are liable to stammer afterwards. A large proportion of stammerers are made by imitating others, who mimic a sufferer from the malady. A large number take on their trouble by unconscious imitation. A child may imitate its brother, sister or parent. Cases that supervene in this manner are not so inveterate as those that arise through ridicule or through a malicious purpose. Children born of stammering parents usually stammer with great facility. In this it may be of transient duration. Stammering is not analagous to *aphasia* due to cerebral lesion.

The treatment carried out intelligently should usually be successful. The tendency is to spontaneous recovery. Total noninterference should be adopted in treating young children who have acquired the impediment by unconscious imitation. The child should be placed in circumstances of absolute freedom of general growth, physically and mentally. A warm climate enhances recovery by increasing the velocity of nervous condition. The self-confidence of a child should be cultivated, and it should be removed from all opportunity to imitate another stammerer. It should be taught music, dancing and calisthenic exercises.

The intelligent adult stammerer should be drilled in elementary articulation. His general culture should be carried to an ex-

treme extent. A high form of will should be required on the part of a patient.

After its conclusion Dr. E. G. A. Trimble asked the author of the paper if stammering was apt to be accompanied by neurasthenia, and if, in hereditary cases, the hesitation generally occurred on the vowels or consonants. Answered: No relation to neurasthenia; and, secondly, that the hesitation most often occurred on the vowel sounds.

Dr. J. H. Etheridge thought well of the pathology as stated in the paper, and asked if singing a word would ease them, or to stop short and count 5, 15, or 20? Answered negatively.

A vote of thanks was tendered to Dr. Bryan, after which the society adjourned.

A goodly number of visitors were present, who stopped while en route to the American Medical Association, and afterward accompanied the party of delegates from this society to Cleveland.

L. H. M.

THE ninth annual meeting of the Tri-State Medical Association, will be held in Indianapolis, September 18th, 19th, and 20th. The work is already far advanced and the title of each paper should be sent in at once. Papers must not exceed 25 minutes.

It is also the rule that each physician who registers must be a member of a local or State society in good repute. All such are invited.

Notice of papers or cases to be presented may be sent to the chairman of the committee on programme, Dr. J. L. Thompson, Indianapolis; to the Secretary, Dr. G. W. Burton, Mitchell, Ind., or to the President Dr. Wm. Porter, St. Louis.

Reviews and Book Notices.

ARTICLE VIII.—THE PATHOLOGY AND TREATMENT OF DISEASES OF THE OVARIES. By Lawson Tait. Fourth edition.

In this fourth edition, the author gives his peculiar views in the most pronounced manner. In the first two pages we are taught that the ovarian dermoid tumor is an analogue to the zoöspore, and that the Graaffian follicle should rather be named oögonium. Every botanist as well as every zoölogist and physiologist will energetically protest against this biological conglomerate. After having given in the next chapter the most accurate anatomica description of the ovaries and its surroundings we have ever read in any language, the anthor rides his hobby-horse i. e. menstruation. The author is well aware that there are accessory ovaries numbering sometimes from 6 to 8, and he most minutely describes the function of the fallopian tubes as oöducts, but he more than astonishes us in giving his theory, i. e. that the fallopian tubes, by encircling the ovary at the time of the ripening of the ovum, produce the phenomena called menstruation. The author peremptorily denies the similarity to menstruation of the rut in animals; and he silently admits that he has never practically observed the phenomena of repeated œstrus at distinct intervals in domesticated animals. In the next chapter the displacement of the ovaries is treated, and everybody knows that the author is always in favor of extirpation as the *sine quâ non*. His audacity in extirpating ovaries and tubes has been followed by success so far as known, but in cases of chronic suppurative inflammation he would rather abstain from operating. His ideas on extra-uterine pregnancy are properly conceived. The chapter on oöphoritis and peri-oöphoritis is classical; andwe are sorry to find in it sentences

like this: "for humanly speaking I shall always look upon you as her saviour." The author concedes in this chapter that small cystic ovaries cause hæmorrhage in the uterus. In the "conditions which simulate ovarian tumors," the author repeates his biological reasonings in the above named characteristic manner, but there are many points of interest and truth. The practical part of this and the next chapter on ovariatomy, forms the basis of the book. There the author shows his thorough knowledge of topographical anatomy and his large surgical experience. There is a minute description of all the essential points in this widely executed operation. American priority in ovariotomy and oöphorectomy is denied, but due credit given to McDowell and Battey. The last chapter on "recent extensions of abdominal tumors," is rather eccentric, the author favoring exploration of the pelvic cavity in all cases of abdominal diseases not due to malignant growths, and he gives the characteristic opinion that "risk of life in chronic ill-health is no argument against operation." Pelvic suppuration, as the author calls it, is treated by abdominal section and drainage, but the author's experience on this point seems to be rather short and not successful. The book has a fine exterior and the print is large and distinct. The author should attend to the correct printing of the German book-titles. The book has so many interesting points that even the most scrupulous reader will lay it aside with entire satisfaction. O. S.

ARTICLE IX. — FIRST AID TO THE INJURED. By PETER SHEPHERD, M.D., Surgeon-Major, Army Medical Department; Associate of the Order of St. John of Jerusalem. Revised by Bowdich Morton, M.D. Cloth, pp. 88. New York: G. P. Putnam's Sons. Chicago, Jansen, McClurg & Co.

This little work is gotten up in nearly the same style as the Student's Aid Series. The author states in the preface, that there is no attempt made to popularize medicine and surgery; the object is to furnish a few plain rules, which may enable any one to act in cases of injury or sudden illness, pending the arrival of professional help.

The professsonal help called would sometimes be able to treat

such cases more intelligently, if familiar with the contents of this book.

The first part of the book is devoted to an outline of anatomy and physiology.

In speaking of the ribs, the statement is made that the lower five are termed floating or false ribs, having no attachment in front. We believe the two lower ribs only are, properly speaking, termed floating ribs, "having no attachment in front." The three just above the floating ribs are attached in front to the true ribs by means of cartilage. The lower five are false ribs. The membrana tympani is called the drum of the ear. The membrana tympani is the head of the drum, tympanum, or middle ear, but is not itself alone the drum or middle ear.

With these exceptions, the book is very correct. The latter half of the work contains much valuable matter, which might be read over many times with advantage to the reader.

J. T. M.

ARTICLE X.—POTT'S DISEASE: ITS PATHOLOGY AND MECHANICAL TREATMENT, with Remarks on Rotary Lateral Curvature. By NEWTON M. SHAFFER, M.D., Surgeon in Charge of the New York Orthopœdic Dispensary; Orthopœdic Surgeon to St. Luke's Hospital, New York. Cloth, pp. 82. New York: G. P. Putnam's Sons. Chicago: Jansen, McClurg & Co. Price $1.00.

This is a plain, concise, and practical work on Pott's Disease. The author gives the classes, causes, and symptoms of the disease, in a clear style. The treatment is based on the pathology, which is prominently considered. Attention is often called to the similarity of Pott's disease and osteitis of the hip- or knee-joint. Hence the same rule should govern the treatment in both.

The author has been treating his patients having Pott's disease with an antero-posterior support, using a chin-piece to steady the head, when the disease is in the cervical or upper dorsal regions. The advantages of this over the plaster jacket are many, namely: it is lighter, and more comfortable to the wearer; it is easier adjusted; there is no need of suspension in application; pressure is applied just where it is needed most; respiration and transpira-

tion are not interfered with, and cleanliness of the body is better secured.

Surgeons who are still treating Pott's Disease with the plaster jacket should read this book, and give the antero-posterior support a trial. We think if they would do so, the plaster jacket would be soon discarded entirely in the treatment of this disease.

J. T. M.

ARTICLE XI.—TREATMENT OF VARICOCELE BY EXCISION OF REDUNDANT SCROTUM. Illustrated by New Instruments and an Account of Fifteen Successful Cases. By M. H. HENRY, A.M., M.D., Late Surgeon-in-Chief to the State Emigrant Hospitals, Ward's Island, New York; Fellow of the New York Academy of Medicine, etc., etc. Cloth, pp. 24. New York: J. H. Vail & Co.

Of all operations for the radical cure of varicocele, the one described by the author of this little book, experience shows, is the safest and best.

The author has devised a clamp or scrotal forceps to be used in this operation. A fold of the scrotum is held firmly by the instrument during the operation. As much of this fold as is thought necessary is removed with the knife or scissors. The clamp keeps the edges of the wound in place, and is not removed till sutures are inserted.

By using the clamp, not only can the operation be done very quickly, as the testicles do not become exposed, or interfere with the introduction of sutures, but the author claims he can get union by first intention in the majority of cases. Thus the instrument appears to be a very useful one, especially would it be so to a surgeon who often performs this operation.

The pathology of varicocele receives its share of attention. Members of the profession to whom this operation is new would do well to peruse this work.

J. T. M.

BOOKS AND PAMPHLETS RECEIVED.

BOOKS.

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Diseases of the Ovaries. Lawson Tait. Wm. Wood & Co. W. T. Keener.

Diseases of Women. Frisch. Wm. Wood & Co. W. T. Keener.

Diagnosis of Ovarian Cysts by Examination of their Contents. Garrigues. Wm. Wood & Co. W. T. Keener.

Report Michigan State Board of Health, Lansing, Mich.

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Therapeutic Handbook of the Pharmacopœia. Wm. Wood & Co. W. T. Keener.

The Microscope and Its Revelations. Carpenter. Wm. Wood & Co. W. T. Keener.

How to Examine the Chest. Samuel West. Philadelphia, Blakeston's Son & Co. Chicago, W. T. Keener.

The American Citizen's Manual. W. C. Ford. N. Y., G. P. Putnam's Sons.

Alcoholic Inebriety from a Medical Standpoint. Joseph Parish. Phila., P. Blakeston's Son & Co.

Aids to Medicine. C. Armand Semple. N. Y., G. P. Putnam's sons.

First Annual Report of the Provincial Board of Health of Ontario, Year 1882. Toronto, C. B. Robinson.

Treatise on Insanity in its Medical Relations. Wm. A. Hammond. N. Y., D. Appleton & Co. Jansen, McClurg & Co.

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Diseases of the Throat. Carl Seiler. Phila., H. C. Lea's Son & Co. Jansen, McClurg & Co.

Taylor's Medical Jurisprudence. Third edition. Vols. I. and II. Phila., H. C. Lea's Son & Co. Jansen, McClurg & Co.

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Practitioner's Ready Reference Book. R. J. Dunglison. Phila., Blakeston, Son & Co. W. T. Keener.

Bacteria and the Germ Theory of Disease. H. Gradle. W. T. Keener.

Relations of Micro-organisms to Disease. W. T. Belfield. N. Y., Wm. Wood & Co. W. T. Keener.

Examination of Modern Chemicals. Hoffman & Power. Phila., H. C. Lea's Son & Co. Jansen, McClurg & Co.

Diseases of the Male Sexual Organs. Samuel W. Gross. Henry C. Lea's Son & Co.

Diseases of the Eye. Second edition. Edw. Nettleship. Henry C. Lea's Son & Co. Jansen, McClurg & Co.

In-Knee and Its Relation to Rickets. W. J. Little. N. Y., D. Appleton & Co. Jansen, McClurg & Co.

Lectures on Medical Nursing. J. W. Anderson. N. Y., MacMillan & Co. W. T. Keener.

Ausculation and Percussion. Manual of Austin Flint. Third edition. Phila., Henry C. Lea's Son & Co. Jansen, McClurg & Co.

Handbook of Electro-Therapeutics. Wilhelm Erb. Trans. by Putzel. N. Y., Wm. Wood & Co. W. T. Keener.

International Encyclopædia of Surgery. Vol. III. N. Y., Wm. Wood & Co. W. T. Keener.

PAMPHLETS.

Clinical Lecture on the Treatment of Caries of the Lumber Vertebræ. M. J. Roberts.

Ergotin and Pelletierine. Ch. Tauret.

History of Health Work in Indiana. Thad. M. Stevens.

What is Disease. W. Godfrey Dyas.

Clinical Notes on Opium Addiction. J. B. Matteson.

Cough of Remote Origin. W. E. Cassellbery.

Homicide and Suicide in Philadelphia, 1871 to 1881. Jno. G. Lee.

Hints on the Treatment of Some Parasitic Skin Diseases. Geo H Rohé.

Treatment of Various Forms of Acne. Geo. H. Rohé.

Pemphygus and Some Diseases Liable to be Mistaken for It. G. H. Rohé.

The Prevalence af Pneumonia in Chicago in 1882. N. S. Davis.

General Paralysis of the Insane. T. F. McFarland.

The Hypodermic Treatment of Syphilis. A. Lagorio.

The Treatment of Bubo. G. Frank Lydston.

Translations from Foreign Exchanges.

BY O. STROINSKI, M.D., CHICAGO.

COTOINE.

Cotoine, recently detected in the cota bark by Sabot, when given to healthy persons in doses of ½ gram., increases the appetite without producing constipation. It is easily dissolved in the stomach, but slowly in the alkaline fluid of the intestines. It will be found in the urine, giving a yellow-collored deposit by alkalies, a blood-red by nitric acid, and a yellowish-brown by sulphuric acid. Albertoni (*Annali. Universali Di. Med. e Chir.*) reported his results with cotoine in a series of 100 cases, the most of his patients being insane or very emacated persons. To acquire correct results he made strict rules, regulating the nourishment, temperature, etc. He comes to the following conclusions: Cotoine is indicated in diarrhœa, complicating the various forms of insanity. It is especially the neuro paralytic diarrhœas which can be artifically produced by depriving the intestinal tube of its nerves. It is proved that in the diarrhœa of the insane, the lessened faculty of resorption is the principal point, and also in chronic intestinal catarrh; in which cases cotoine is a good remedy. In diarrhœa of cachectic or marasmic persons, in malaria, and in the diarrhœa of nurslings, cotoine is indicated, as it has also given good results in pellagra. It is given in doses of 15 to 20 ctgrm., in different cases, every four hours. The best form is the powder, but it must be the genuine article. Albertoni thinks that it has a specific influence on the epithelial coat of the intestines, modifying the physiological action of the latter. He compares the whole intestinal tract to a gland whose epithelium attracts the digested matter, and con-

ducts it into the blood. If the physiological action of the epithelium is lessened, as in intestinal catarrh, etc., the epithelium does not only absorb nothing, but it admits a filtration of substances from the blood. Cotoine acts directly on the epithelium, and it produces thus very good effects.—*Med. Chir. Centralblatt.*

JEQUIRITY-OPHTHALMIA. A NEW INFECTIOUS DISEASE.

L. De Wecker first called the attention of ophthalmologists to the effects of a decoction of the seed of abrus pecatorius on the conjunctiva of the eye. The fact that in cases of long existing chronic inflammation, an acute attack removes the old exudation by resorption of the latter, is well known to the medical world, but there has never been a better proof of this fact than the effects of jequirity on the conjunctiva. Since the inoculation of acute blenorrhagic conjunctivitis in cases of trachoma, etc., which is a very prompt but at the same time dangerous proceeding, several remedies have been used to provoke an acute inflammation on the conjunctiva, but without success. Jequirity has been known in Brazil for a long time, and the reports of Brazilian physicians show the dangerous character of this remedy, if it is not well regulated by experts. Of the seeds, reduced to a fine powder, about 3 grammes are macerated in 500 l.l. of cold water for 24 hours, then the same quantity of hot water is added, and the whole filtered. The fluid is applied with a brush to the lids three times every second day, until inflammation is produced. By close observation, it has been determined that this inflammation shows a different character from all the other typical inflammations of the conjunctiva—that it is, in fact, an inflammation *sui generis*. Dr. Tattler, in making repeated experiments and microscopical examinations, has proved that the inflammation is caused by micro-organisms contained in the seeds of jequirity. This experimental study has been confirmed by the contagious character of the inflammation. All persons whose eyes came in contact with the instruments used in the experiments, or with persons treated with jequirity, have been likewise attacked by conjunctival inflammation.—*Wiener Med. Wochenschrift.*

CONVALLARIA.

Linné says in his Flora Lapponica: "ne inventionen nimiam introducamus levi mutatione *convallariam* decimus aliorum *Lilium convalliam*" (the lily of the valley). This plant was known in the dark ages and it is mentioned in the Bible. Long before Christ the flower was much praised among the then savage Germans and it has at this day many high-sounding German names. After the conversion of the Germans to Christianity, the flower got the name of the mother of Christ (Mary's flower), an indication of the respect in which the flower was at that time held. In the year 1029 A. D., Bishop Falbertius said: The feast of the birth of the holy Maria should be celebrated especially by the virgins, for on that day is annually born (is the birth) the lilium convallium. And Saint George, the noble Hungarian, is painted in full armor, having conquered the dragon with the lilium convallium. In those dark ages the convallaria was regarded as a regular panacea and the decoction of it was called aqua aurea (golden water). In the castle of Wolfartsweiler there is secreted a large treasure, to recover which there appears every seventh year a lady carrying a bunch of convallaria. Of all the grandeur of this highly praised plant there remained in the last century only its value as a snuff. But this day of railroads and telephones has brought again to light the ancient glory of convallaria, and the pens of many professors are busy in describing its wonderful effects. Do you wish to know who you are, then look about you on the faces of your friends. The convallaria belongs to the same class as atreptopus, paris, smilax and rascus, whose medical effects are null. Rest in peace dear convallaria.—*Med. Chir. Central-Blatt.*

COMPRESSION OF THE OVARY IN RELATION TO HYSTERICAL ATTACKS.

The experiments of Charcot at Paris, with this object in view, have not been regarded as very important and truthful, but the following case corroborates his views: The patient, a girl twenty-three years of age, was the daughter of nervous and uræmic parents. She menstruated when fourteen years of age, with severe pains, which increased monthly, and in her seventeenth

year she had hystero-epileptic attacks. After a certain time the attacks disappeared, but she passed now through all the symptoms characteristic of hysterical persons. The uterus was enlarged and strongly anteflexed, and there was in the anterior wall a fibroid tumor of the size of a walnut, causing complete retention of the urine. The anteflexion was treated by inserting an intra-uterine stem pessary of glass. One day the patient fell from a chair and the intrauterine pessary was broken to hundreds of pieces. Two large pieces were removed, but it was impossible to extract the many small fragments of glass which were imbedded in the mucosa. From this time on, the patient had severe nervous attacks. She did not recognize her parents, and she thought the physician to be one of the servants, writing at the same time to him and complaining about his neglecting her. At other times she left her bed, and she played the most difficult compositions on the piano. In one of these attacks there was made a bimanual compression over the left ovary, and the patient suddenly became conscious, recognizing everybody around her, and speaking in the usual polite manner, while before she had been very abusive.—*Memorabilien*,

PARAMYO-KLONUS MULTIPLEX.

The patient, 10 years of age, is of healthy parents. When 4 years of age, for years after measles, he suffered from dyspeptic troubles. Two years ago he had contraction of the right arm, especially on the flexors and extensors of the carpus, and the patient was not able to use this hand in writing, etc. Later, the left arm was attacked. The present status is as follows: No irregularity on the part of the cerebral nerves, skin intact, no symptoms of muscular atrophy or hypertrophy. No peculiar sensibility, a pressure on the skull or vertebral column and no sign of ataxia. In observing the undressed boy there is noticed a peculiar muscular movement of the upper extremities. The supinator longus and the biceps present a perpetual change of contraction and relaxation of these muscles. In the supinator there are counted 40 contractions in 30 seconds. The pectoralis major is also slightly contracted on the left side. On the lower extremities there is the same peculiar change. The muscles af-

fected in these parts are the vastus internus, gracialis, semitendinosus and semimembranosus. In the latter are counted 36 contractions in 15 seconds. By active movement the normal state appears immediately. Cold air or pressure on the muscles increased the contraction considerably. The muscles acted normally when electricity was applied. The patient was treated with the galvanic current and the success was apparent after including the ganglion supremum in the current and by the internal use of vaterianiate of zinc.—*Aerztl. Intel. Bl.*

THOMSEN'S DISEASE.

In the society of physicians at Berlin, Prof. Westphal presented two cases of this very rare disease. It is shown by tonic contractions of the muscles and the patients feel a tetanic stiffness in the extremities, increased by complicated movements. Passive motion is easily executed and there is no disturbance in sensation. This anomaly of motion is extended to muscles provided by the cerebral nerves and there is stiffness of the tongue, difficulty in opening the eyes, and muscular tension in masticating. The sphincters are free. The most prominent symptom in this disease is the greatly increased volume of all the muscles of the body, so that the patients look like athletes. But the muscular power not being increased, the patients are usually looked upon as lazy people, and they have as a consequence been badly treated in the German army. The tonic contractions are very slow and in tapping the biceps one will see the muscle contract to a very large bundle, but it will recede very slowly. The pathology and the therapy of this disease are entirely unknown, but the disease is apparently hereditary in character.—*Wiener Med. Wochenschr.*

ANGUILLULA STERCORATIS AND ANGUILLULA INTESTINALIS.

Cuckart, at Leipsic, detected anguillula, which had been first described as causing diarrhœa in Cochinchina, in the fœces of a man who had lived for a long time in Mexico and Atchin. He transferred the young worms to a breeding apparatus, and after thirty hours there were developed the full-grown worms, provided with a complete genital apparatus. The animals copu-

late outside the intestines, and the females produce ova and embryos, which readily escape, the young worms measuring from 02 to 05 mm. After throwing off the skin, they have the characteristic form of rhabditis, and they take the form of strangylids, distinguished from the former by the tail and æsophagus. But this generation does not develop, and it is most probable that they have to be introduced into the intestines to reproduce the characteristic form of rhabditis. It is further probable that this generation will not be developed to anguillula stercoratis, but to anguillula intestinalis, and that the former has to be stricken from the class of poro-parasites inhabiting the human body.—*St. Petersburg Med. Wochenochraft.*

ENCEPHALIC HÆMORRHAGE FROM LESIONS OF THE MEDULLA OBLONGATA.

M. Brown-Séquard reported in the Biological Society of Paris that he had seen lately several cases of hæmorrhages into the lung, liver and heart, caused by traumatism of the brain in consequence of a shock to the posterior part of the cranium. He has seen the great trunks of the arteries and veins of the lung to contract rapidly, and to drive the blood into the capillaries so as to burst these vessels. The reverse will be seen by section of the inferior part of the medulla clavicalis in the pigeon producing instantly hæmorrhage at the end of the bulbar portion. The pathogeny of these accidents is under the influence of the vaso-motor nerves. In the same manner must be explained cerebral hæmorrhage appearing suddenly in several points, and which it is difficult to attribute to a simultaneous rupture of a great number of miliary aneurisms.—*Le Progrio Médical.*

MALIGNANT TUMORS OF THE THYROID GLAND.

The mortality of operations upon malignant tumors of the thyroid gland is very large. In all cases where there is the least suspicion that the vessels of the throat or the trachea or œsophagus are diseased, all these parts have to be extirpated. Of 34 patients operated on, 22 died right after operation, and there is but a single case known where there was no relapse after 16 months. The diagnosis of malignant growths in the thyroid

gland is very difficult, and it is often only at the operation that the diagnosis can be made correctly. The sarcoma, as well as the carcinoma and the adenoma, are found in the thyroid gland, and there are very often mixed growths. That excision of so important parts as the larynx is often followed by death, is not surprising.—*CorrespondenzBlatt f. Schweizer Aerzte.*

URETHRO-RECTAL FISTULA, WITH NARROWING OF THE URETHRA AND INTERSTITIAL NEPHRITIS.

The patient, twenty-nine years of age, had suffered three times from blenorrhagia and narrowing of the urethra. He had difficulty in passing urine, with cystitis and orchitis. Afterward, he noticed that the urine passed through the rectal orifice, as well as through the urethra, and once he could urinate through the anus for ten hours. To pass a sound into the rectal fistula was impossible. Poultices on the abdomen and warm baths accelerated the flow of urine through the urethra. All at once, there was complete retention of urine, and shortly afterward he died. At the autopsy, there was found a fistula in the rectum, 3 cm. from the anus, which communicated with the bladder. The urethra had three narrowed points; one in the spongy portion of the canal, and two others in the membranous portion. In the bladder were profound ulcerations. Both kidneys were atrophied, and the intestines black with congestions.—*France Médicale.*

COLD ABSCESS OF THE TONGUE

The patient has a round spheroid tumor, of the size of a nut, on the right side of the tongue. The tumor commences 2 inches from the point of the tongue, is not discolored, and seems to adhere to the mucosa. Being absolutely painless it is easy to palpate the tumor and even to knead it. There is no impression left upon or by the tests and there is no trouble either in mastication or in deglutition. The tumor was first noticed 4 months ago and it grew rapidly for the first month, but since that time it has been stationary. It was thought to be a hydatid cyst, but puncture revealed a sack filled with fetid pus. The sack was excised and the wound closed by 4 sutures healing per primam. —*France Mèdicale.*

THE CAUSE OF ICTERUS NEONATORUM.

Birch-Hirshfeld, after having examined 600 corpses of newborn children, attributes the symptom to hepatic origin. The immediate cause is œdema in the region adjacent to the vena porta, and œdema in Glisson's capsule, producing compression of the secondary ducts of the gall-bladder. This theory is supported by Hofmeister's researches, who found, generally, biliary acids in the fluid contained in the pericardium of newborn children who died from icterus. By experimental researches, he found that pressure in the region of the vena porta produces a thickening of the blood. He maintains that the infection takes its way by the umbilical vein, and not by the umbilical artery.—*Le Frazre's Médicale.*

ATROPINE IN EPILEPSY.

In the medical society at Vienna, Dr. Lesdesdorf presented a man, forty-five years of age, who had been treated with the bromide of potassium for a long time without success. He being of healthy parents, he never had been sick until he was attacked by a bull, who threw him several feet when he fell upon his occiput. From this time on he suffered from headache, became insane, and had from six to eight epileptic attacks daily. He took the bromide of potassium for two months with apparently no effect, but when he took some powders composed of 02 oxide of zinc and 0001 of atropine, the epileptic attacks did not return.—*Med. Chir. Centralblatt.*

BOTHRIOCEPHALUS.

M. Tenneson showed in the Academy a number of pieces of bothriocephalus resembling inverted intestines. They were expelled by a man who had lived for a long time on the borders of the lake of Geneva, and whose defecations contained a number of eggs of the bothriocephalus. The pieces had the gray median genital pores, and there could be no doubt that they belonged to bothriocephalus. Pelletierine was given with success.—*Le Praticien.*

THE TREATMENT OF AMENORRHŒA IN MORPHINE-EATERS.

The morphine should be suppressed first, but that alone is not sufficient to restore menstruation. It is necessary to give the patients daily a cold douche-bath, directed to the inferior part of the trunk and to the lower extremities. Before and after the douche they must walk. They should take pills composed of extr. belladonna 0.40, and sulphate of quinine 0.60 to .40 pills, five to ten daily. After a month's treatment, the uterine isthmus should be catheterized until menstruation sets in regularly.—*Révue Médicale.*

In the last surgical congress at Berlin, Dr. Lehoenborn reported a very interesting case of gastronomy. A girl, 15 years of age, suffered from incessant vomiting, and there was a hard tumor of the size of a fist below the liver. After dissection of the abdominal walls the tumor was found to be in the stomach, and adjoining the latter there was detected a black moveable body which proved to consist of small pieces of hair mixed with mucus. The girl confessed that she had bitten off from her cue the ends of the hair to get a clear voice. Recovery was rapid without any fever.

By A. LAGORIO, M.D.

IMPERFORATE ANUS, WITH NORMAL CONFORMATION OF RECTUM AND DISCHARGE OF MECONIUM BY A RETRO-SCROTAL CUTANEOUS ORIFICE.

Imperforations of the anus are divided in three classes: 1st, Simple imperforations; 2nd, Imperforations complicated with a partial or total absence of rectum; 3d, Imperforations complicated by a deviation of rectum, opening in other parts than the anal region, and forming an anus *contre nature.* The following case, that Dr. Ramonet reports in the *Archives de Générale de Médicine* (March, 1883,) does not belong to any of the above classifications; it constitutes a new variety, interesting and valuable to know, and was never described by any author. The patient is a new-born male child, three days old. On account

of the imperforated anus he has not discharged but a very small quantity of meconium through an orifice of the size of the head of a pin situated behind the scrotal sac. Patient is quiet, is not agitated, the aspect of the face does not show any suffering; cries a little, but the cry has more expression of anger than pain. No meteorism, and no tenderness on pression; has no vomiting, temperature is normal, respiration and circulation regular.

These negative symptoms show a perfect tolerance on the part of the intestine; they singularly contrast the symptoms of an internal obstruction. The inspection of the anus shows an imperforation of this organ, with no signs of its location. The skin of the perineum is smooth, with no depressions, and without designating the median raphe. No fluctuation under the skin is detected, to show any accumulation of meconium. Pression is made on the abdomen to press down the meconium, but nothing of diagnostic importance is elicited. On the upper and posterior part of the scrotal sac, and on the median raphe of the scrotum, exist a small opening, through which the infant has expelled a little meconium. With no little difficulty a probe is introduced in this abnormal opening, and great precaution is used in pressing it inward. It passes horizontally *under the skin*, and reaches the spot where the anus should anatomically exist. This obstacle gave the exact place of the anus. The probe is withdrawn and found covered with meconium; the index finger is pressed in front and behind along the fistulous subcutaneous tract just discovered, and a little meconial substance is forced out of the small orifice. Diagnosis now became easy and the success of a surgical intervention was no longer to be doubted. The rectum had no deviation, was well formed, terminated at the proper place with an anus covered by the skin, and that, instead of opening directly out, formed a subcutaneous tail, represented by the fistulous tract, opening under the scrotum to give exit to the meconium. No time was to be lost and an operation was decided upon. The little patient was placed on the knees of an assistant, in a lithotomy position; a grooved sound was introduced into the scrotal orifice, and pushed cautiously along the fistulous tract until obstructed in the anal region. The skin was pressed against the point of the sound, and through it was

made a longitudinal incision, from in front, backwards two centimeters long. This done, the sonnd was withdrawn. The finger, well oiled, was then introduced in the wound, and pushed toward the rectum. After a great effort to dilate the sphincter muscle energetically contracted, the finger passed in, and in the rectum. In operating the little finger is always to be used to dilate the sphincter, to conquer the spasm, and not withdrawn until the muscle is relaxed. The rectum now expelled a large quantity of meconium. A carbolized tampon was placed in the wound, and changed several times a day. The subcutaneous fistulous tract was left alone, and cleansed by pression and by injecting warm water, and was soon obliterated. The operation was a success.

A different operation could have been made. The fistulous tract could have been incised on a grooved sound down to the anal region, and then a circular piece of skin excised to make the anus. But the author did not think it best. Such an operation would have produced a long wound, which might have become ulcerated or gangrenous by coming in contact with the urine and fæces, and also severe danger of infiltrations of urine, and erysipelatous complication, so liable in the new-born. Lastly the following conclusions are reached :

1st. The case of imperforate anus just reported constitutes an interesting variety, to be added to the different kinds described up to date.

2d. The exit of fœcal matter by an abnormal cutaneous opening, situated in any part outside the anal region, is perfectly compatible with a normal conformation of the rectum, and does not absolutely implicate the deviation and aperture of this organ *contre nature*.

3d. In cases similar to the one reported, the surgeon will leave alone and not incise the fistulous tract ; but will use it as a conductor to make the perineal incision, which will form the anus.

HÆMETIC ORIGIN OF BRIGHT'S DISEASE.

The aim of the researches made by Prof. M. Semmola on Bright's Disease has been to demonstrate that in this disease, on

account of the suppression of the cutaneous functions the albumen of the blood undergoes a chemico-molecular alteration, and not being either assimilated or burnt, absolutely must be eliminated from the body as a substance foreign to the organism. This elimination constitutes the fundamental fact of Bright's albuminuria. Prof. Semmole in his preceding works has studied the chemical reactions capable to characterize the different albumens of the organism as to differentiate them from that of Bright. From these preceding researches, and from those more recent, the author asserts that the albumen found in the urine of Bright's disease is undoubtedly different from that found in albuminuria of a cardiac or amyloic origin. An able expert in the analysis of urines will not mistake the color of the precipitate, and will know immediately the albumen of Bright's disease, which has a particular color, already described by the author (Paris, 1867). To demonstrate the reality of the alteration of the albuminoid substances of the blood, the author has studied the degree of diffusability of the albuminoid substances in the serum of the blood and not in the urine, and has demonstrated that in Bright's albuminuria the diffusion is more or less complete according to the gravity of the disease, while in the normal state, or in other albuminurias (not of Bright's disease) the diffusion is none or very little, without any relation to the quantity of albumen eliminated in the urine. This fact leaves no doubt of the initial existence of chemico-molecular alteration of the albuminoid substances of the blood in Bright's disease, chemically indefinite, but most important, because, as the albuminoid substances are capable of a pathological diffusibility, they are incapable of the nutritive changes to which they were physiologically destined. By these considerations the author concludes that the organism eliminates these substances no longer assimilable, and that the lesion of the kidneys, a depurative organ, does not precede, but is consecutive to this forced elimination. To more confirm his results, he has extended his researches to other organic liquids besides the blood, and when Bright's disease existed he found albumen in the bile, in the sweat and in the saliva, while in other albuminurias the albumen was wanting in these liquids,

which demonstrates that, except in Bright's disease, the albumen is due to a particular local state of the renal circulation. If a hypersecretion of the sweat and of the saliva is produced artificially in a patient with Bright's disease, the albumen in the urine is diminished in accordance with its elimination by these secretions, but the quantity eliminated in twenty-four hours remains the same. The consecutive nephritis, which is the most notable anatomical character of the disease, is due to complexed causes that Prof. Semmola has already shown:

1st. Renal hyperæmia caused by the suppression of the cutaneous circulation.

2nd. Irritant action of this hyperæmia according to the excrementitious products accumulated in the blood and the dysocrasic state produced.

3rd. The continuous functional force that the kidneys must employ to liberate the organism of the albumen which has become non-assimilable and diffusible.

Some of the most eminent German professors, who before combated his theory, to-day are his warm supporters. The author thanks especially Prof. Rogedstein, whose works of comparison confirm his theory.—*Giornale Intern. Scienze Mediche.*

BACRATOSIS, OR A SPECIAL SUBLINGUAL FIBROID PRODUCTION.

F. DeMarinis describes this affection as a hypersarcotic production, found in the oral cavity of poor and neglected children, virulent and fatal. It has never been reported nor described by any author. By the people it is called *Ranocchia*, but not having any scientific name, the author has given one derived from the Greek, for the resemblance which it has to a small frog. In its external and constitutional characters it is entirely different from Ranula. Bacratosis commences on the anterior surface and inferior extremity of the frænum of the tongue, as a tumor not larger than a lentil, or as a small pearl-whitish stain; it is nopainful, giving rise to no mechanical or functional disturbance of any sort. After a month or two, this dirty pearl-whitish appearance extends in length, breadth and thickness, is either transparent or not, hard or friable, and spreads beyond the frænum on which it lies. As it increases in size, it becomes white as milk,

becomes harder, and breaks and divides in its superficies and in its edges, but it never exceeds the size of a large Lima bean; in such a state it produces the greatest possible general alterations, terminating in death.

Sometimes the primordial macula extends anteriorly, resembling a small cauliflower, or extends laterally, and never exceeds the dimensions of half a centmetre in breadth, one centmeter in length, and two or three millmeters in thickness. The children thus affected emaciate rapidly as the disease increases. The animal thermogenesis is lowered, they become extremely leant pale to a marked degree, and death finally supervenes. Bacratosis attacks children enjoying the best of health, although sometimes it is preceded by stomatitis, aphthæ, gastric and intestinal catarrhs or diphtheria. This disease is infective in its last stages, and then is absolutely mortal. Its infection is the same as that of cancer and of equal virulence. The skin becomes straw colored, as in other malignant diseases, the eyes are imbedded in their sockets, the nose pointed, the voice feeble, respiration is abdominal, there is vomiting, with copious and wasting diarrhœas.

DeMarinis defines this disease in its pathological nature as malignant or cancerous, but of a special type, which renders it different from the carcinomatous evolutions and forms.

The treatment consists in caustics and local antiseptics and astringents—generally tonics, cod liver oil and fresh air.—*Giornale Internazional delle Scienze Mediche.*

SIR T. SPENCER WELLS, BART.

The queen has signified her intention to confer a baronetcy upon one of the most eminent surgeons of the day, the president of the Royal College of Surgeons—namely, Mr. Thomas Spencer Wells, of Upper Grosvenor Street, and of Colder's Hall, Hamstead Heath. This honor is officially recorded as a special acknowledgement of "the distinguished services which he has rendered to the medical profession and to humanity." The newly created baronet is the eldest son of the late Mr. William Wells, of St. Alban's, Hertfordshire, by his marriage with Harriet, daughter of the late Mr. William Wright, of East Sheen, Richmond, Surry. He was born in the year 1818, at St. Alban's,

and was educated at Trinity College, Dublin. He gained his first medical experience at the infirmary and school of medicine at Leeds, and subsequently studied in the anatomical school at Dublin and at St. Thomas' Hospital. He was admitted a member of the Royal College of Surgeons in 1841, and in 1844 was elected one of the Honorary Fellows created by the new charter. Having become an assisstant surgeon in the navy he saw some active service, both afloat and ashore, before and during the Crimean war; and he was sent out in 1854-5, under the auspices of Mr. Sidney Herbert, as chief surgeon at Smyrna, and at Rankei, on the Dardanelles. Returning to England at the close of the Russian war, he devoted himself to the study of that branch of professional practice with which his name is associated —namely, ovari-women. He is not only president of the College of Surgeons—in which capacity he delivered the Hunterian oration last year,—but a Fellow of the Royal Medical and Chirurgical Society, and surgeon to her majesty's household; and at the third centenary of the University of Leyden he had conferred upon him the almost unique degree of an honorary M.D. He is the author of several important surgical works, especially on those improvements in operative surgery to which he has specially devoted himself. He married, in 1853, Elizabeth, daughter of the late Mr. James Wright, solicitor, of New Inn, London, and of Sydenham, Kent, by whom he has a family.—*Illustrated London News*, April 28, 1883.

EXTIRPATION OF A FIBROMA OF LEFT KIDNEY AND SUPRA RENAL CAPSULE, WEIGHING 37¼ POUNDS—RECOVERY.

Dr. Reinhold Buntzel reports (*Berl. Klin. Woch.*) a case of a young woman, 33 years old, who had noticed five years ago a tumor rapidly increasing in size. It had already reached the size of a man's head, and she sought the advise of Spiegelberg, who after an examination declined to operate on account of the extremely reduced condition of the patient. Later, she consulted gynæcologists and surgeons, who made examinations and explorations with no results, and each one declined to operate. Notwithstanding every sort of treatment, the tumor constantly creased; intense acute pains were felt in the left foot, radiat-

ing up the thigh. Digestive troubles came on, and the patient rapidly emaciated. The tumor now extended from the xiphoid appendix down to the superior border of the symphysis pubis, filling all the abdomen. The uterus was free and mobile. No ædema nor ageites. The urine was never albiminous. An operation was made at the request of the patient with all antiseptic precautions á la Lister. The abdominal incision extended from the xiphoid appendix to the superior border of the symphysis pubis. The tumor when laid bare presented some signs of fluctuation, and in an effort to diminish its size, was aspirated, but with no result. The hand could not be introduced behind nor below the tumor to ascertain its relations. It was detached partly with the hand and partly with the bistouri, some parts being adherent to the peritoneum, and arteries of considerable size were tied.

The growth when extirpated weighed 37¼ pounds, and was a fibroma of gigantic dimensions, which had originated in the suprarenal capsule.

The operation lasted two hours and a half. Chloroform was administered, and it was borne well until after the extirpation of the tumor, when symptoms supervened, which necessitated the suspension of the anæsthetic, a resort to artificial respiration, and some hypodermic injections of ether, etc. In four weeks the patient left the bed, and made a rapid recovery.—*Archives Génêrale de Médicine.*

LEAD PALSY CAUSED BY THE USE OF A HAIR-DYE.

M. Angier, professor of pathological anatomy at Lille, has had occasion to observe a case of lead poisoning, remarkable for the variety of the cause and the difficulty of its diagnosis. It was that of a female sixty-two years of age; feeble; subject to an obsitnate constipation, without colic, who was gradually taken for about a year with a feebleness of the superior limbs, from the forearms to the shoulders. She was treated with several remedies without any relief, and without any knowledge of the true cause of the paralysis. When M. Angier saw the patient; the attitude of the superior members, the "wrist drop," and the complete impotency of the extensor muscles, he immediately thought

of lead palsy, and actually discovered a well-marked blue line along the edge of the gums, but there was nothing in the alimentation, in the habitation, nor in the profession of the patient, that could suggest the least suspicion as to the way in which the lead had been absorbed. At last it was discovered that the patient, for over five years, had been used to dye her hair, naturally white, with a black cosmetic, which, after an analysis by M. Schmith, was found to contain some sulphate, some iodide, and some chromate of lead. This evidently was the cause of the poisoning. The use of the dye was suspended, and after a month of treatment with sulphur baths, with iodide of potassium, and with faradization, the superior limbs regained their movements, and the general state of health was re-established.—*g. Méd. de Lille, et Par. Méd.*

PARENCHYMATOUS INJECTIONS OF HYPEROSMIC ACID IN TUMORS.

There was a case in the surgical clinic of Prof. Winiwarter, at Liege, of a man affected with a sarcoma of the size of the head of a child, situated in the right lateral region of the neck. On account of its intimate relation and adhesion to the great vessels and nerves of the neck, it was impossible to resort to extirpation. Dr Winiwarter then thought to try the effect of parenchymatous injections of hyperosmic acid (a substance used for histological purposes). For fourteen days he made a daily injection of three drops of an aqueous solution of a hundredth part of hyperosmic acid, with a Pravaz syringe. After this time, the tumor had entirely softened, and the mortified substance, changed into a serous pus, was eliminated through openings made in the skin. These incisions rapidly cicatrized, the infiltration diminished day by day, until after a month the tumor entirely disappeared. The integument that covered it remained intact. There was not the least sign of heat or inflammation, and the general state was not modified in any manner. After this, the injections of hyperosmic acid were employed with success in a sarcoma situated in the region of the shoulder (a relapse after a disarticulation of the humerus); also in a case of multiple lymphomas of the neck, and in scrofulous adenitis of the neck, and in other tumors of this sort.

In cases of carcinoma of the glands, the result was null, although a half syringeful of Pravaz of a 1 per cent. solution had been injected.

The principal advantage of hyperosmic acid seems to reside in the property of not acting on the healthy tissues, and in its having a limited action at the point of injection. Many cases of lymphoma, which before were treated for months with every possible means, with no results, disappeared under the influence of the injections of hyperosmic acid.—*Revue Médicale.*

MICROBES IN MARINE FISHES.

Ollivier and Richet have discovered, by a microscopical examination, microbes in living fishes, killed immediately after being caught; in the sea-eel, the turbot, the sea dog, the shark, the whiting, the red mullet, and in several others. Only in one fish (the sea dog) no microbes could be discovered. In one sea eel, numerous microbes were discovered in the lymphatic fluid, but none in the blood. Except in these two cases, all the parts of the organism of the fishes examined presented large quantities of bacteria. These parasites were especially numerous in the peritoneal fluid, in such amount as to render impossible the counting of them. They are less abundant in the blood than in the lymph, sometimes requiring careful attention to discern them. Most often these bacteria are bacilli, long or short, generally slender, and terminating in a spindle extremity, animated with little oscillatory movements. They are colored by the picro-carminate of ammonia and by the aniline colors. Some presented spores in the middle or at the extremity of the rods. Sometimes the spores, becoming free, were seen swimming at the side of the rods. The authors have made, with the microbes, culture experiments and experiments of occlusion; the latter have been made with parraffine melted at 140 degrees.—*Archives générale de Médicine.*

PHENIC ACID.

Van Hoye has written a thesis with a great conviction acquired through numerous series of experiments, some of them ersonal. Here the principal conclusions—doses of phenic acid

with no action on the normal temperature, are sufficient to lower a febrile one, and the lowering is effected in all febricitants, as much in single phlegmasia as in the infective pyrexia. The decrease of temperature commences immediately after the absorption of the remedy; it oscillates from 1 to 3 degrees centigr. When the antipyretic action of the preceding doses is exhausted, a rigor and all the phenomena of a febrile attack comes on, in the same time the temperature arises to the primitive degree, and probably higher. When a new dose is administered in time, it may stop the attack, or prevent it. Sufficient doses to produce the full antipyretic effect, have no immediate effects on the feverish. In the beginning of the fever fifty centigr. given by the rectum are sufficient in all cases. In general the dose can be progressively increased to 2 grams at a time, and 12 grams a day. One gram given at once has been sufficient in some individuals, of a special susceptibility, to produce a thermic depression, even down to 34 5°, centigr. Such an exaggerated lowering has had no ill effects in any of the febricitants. Pulmonary congestions are to be feared and avoided. The antipyretic properties of phenic acid are to be reserved to combat the hyperthermia of the continued and intermittent fevers.—*Rundschau.*

CHLORATE OF POTASSIUM POISONING.

Four children died from the toxic effects of chlorate of potassium. The solution consisted of chlorate of potassium 7½ grains, tilia infusion 175 grains, with little syrup of orange flowers, taken at tablespoonful doses ten to fifteen minutes apart. Bronardel and L'Hote, after a thorough judicial investigation, have reported in the *Annales de Chimie* the following conclusions: That chlorate of potassium, taken in relatively small but frequent doses, may produce such toxic effects as to produce death. That the chemical researches to find the chlorate of potassium in the organisms must be towards the finding the salt itself, which normally does not exist in the body: to find the chloride and the potassium separately, normal constituents of the organism, would be insignificant. The symptoms of poisoning are divided as following:

(*a*) Cutaneous phenomena, known by the appearance first of bluish stains, then cyanotic, and sometimes icteric.

(*b*) Gastro-intestinal derangements, produced by diarrhœa and greenish vomiting.

(*c*) Derangements of the urinary secretions; if the quantity of the salt taken is small, the urine increases; but if in such quantity to produce toxic spmptoms, at first is diminished or arrested, and then becomes abundant, bloody and albuminous.

(*d*) Derangements of the nervous system, shown by collapse and coma terminating in death.

AFFECTIONS OF MENSTRUATION IN THE TYPHOID CONDITION.

Brierre de Boismont, Vogel, Gubler, Raciborshy, etc., have already studied them, but the results have been contradictory. Barthel proves, in the first place, that the menstrual period is never absent when the date of its appearance is about in the fifth day of the invasion of the disease; menses will more frequently appear when their epoch is from the sixth to the fourteenth day of the invasion; beyond this time they will be absent without exception. Amenorrhœa is most frequent in the abdominal typhoid. The character of the sanguinous discharge differs according to the state of the health. During the petechial typhus, its quantity is diminished; in relapsing fever, is increased. When, during a typhoid fever, the menstruation has been absent, there will be amenorrhœa for two to three months after. Bartbel has not noticed as frequently as Gubler the pseudo-menstrual hæmorrhages. He has valued the proportion about 3 to 5 per 100 of cases.—*St. Petersburg Medical Weekly.*

TREATMENT OF PTYALISM OF THE INSANE.

A notable fact, demonstrated by numerous observations made by Dr. E. Duiat, is the toleration of atropine by the insane. These are his conclusions: 1st, the neutral sulphate of atropine is certainly very efficacious in the treatment of the ptyalism of the insane; 2d, when it does not completely cure the salivation, it notably diminished this symptom, and if it reappears, never reaches the primative amount; 3d, about three weeks are required to cure the sialorrhœa, and the daily dose of

the atopine is 1 to 3 milligrammes; 4th, the duration of the treatment seems to be more related to the antiquity of the sialorrhœa than to its abundance; 5th, the insane tolerate extremely well the sulphate of atropine; 6th, good results have also been obtained in cases complicated with bronchrrhœa and epilepsy. An obstinate and copious case of epiphora was also cured.—*Giornale Internazionale delle Science Médicale.*

RHEUMATIC OPHTHALMIA.

M. Perrin presented to the Académie de Médecine a second series of observations tending to demonstrate the existence of a conjunctivitis, or better, a purulent ophthalmia of a rheumatic nature. It has the general symptoms of a gonorrhœal ophthalmia. It appears suddenly, and progresses rapidly. The diagnosis is grave. Often its results are: ulceration of cornea and distruction of vision. What distinguishes it from gonorrhœal ophthalmia is that it appears in the absence of gonorrhœa and of purulent ophthalmia, but always after an attack of acute articular rheumatism. This observation shows that rheumatic conjunctivitis is influenced by the state of the weather; that it is more frequent in the cool nights of summer; and, that is is more often the starting point of ophthalmia epidemics in prisons, hospitals, sea vessels, etc.—*Revue Médicale.*

CHOLECYSTOTOMY.

Prof. Langenbeck (*Berl. Klin. Woc.*) recently exterpated a gall bladder from a chronic calculous affection of that organ. He made an incision on the external border of the right rectus muscle, and another at right angles corresponding to the anterior border of the liver. When the abdominal cavity was opened, a ligature was placed around the cystic duct, after which the gall bladder was removed. The case terminated in a good recovery. —*L' Union Médicale du Canada.*

TREATMENT OF CARIES.

Kollman has had occasion to cure four cases of caries by using frictions of black soap only. The obtained results could not be better. The first case was a caries of the sternum and of ver-

tebræ. The usual remedies mostly lauded by classical authors were used internally and externally, but with no success. The author then used inunctions of black soap, already recommended by Dr. Kapper. After a week the patient left the bed and began working. Cod liver oil was also given internally. In other three cases the success of cure was equally rapid. The inunctions were made with a sponge with 15 grams of black soap with a little water, repeated twice a week, and lasting 15 to 30 minutes each. The preferred place of application was the dorsum, from the nucha to the popliteal space of each side.—*Wiener Med. Zeitung.*

REPORT OF MARRIAGES, BIRTHS AND DEATHS IN PARIS FOR 1882.

There have been 21,411 marriages, as follows: Between young men and maidens, 17,619; between young men and widows, 1,206; between widowers and maidens, 1,710; between widowers and widows, 904. Divorced, 12. There have been 62,581 births; 31,828 males and 30.753 females. The number of deaths for 1882, was 58,702; of these 17,411 were of children below five years; the report of births was 106.6 to 100 deaths; 10,342 deaths were caused by phthisis pulmonalis; 7579 due to epidemic diseases, as follows: Typhoid fever, 3,352; small-pox, 661; measles, 1,015; scarlatina, 158; diphtheria, 2,390. The number of suicides was 767; 612 males, 155 females. Lastly, the number of still-births was 5,170.—*Le Pratician.*

EFFECTS OF MEDICINES UPON THE SECRETION OF MILK.

M. Stumpf, in *Dutsch Arch. f. Klin. Med.*, reports the following conclusions: The potassic iodide diminishes the secretion of milk; salicylic acid stimulates it. Alcohol, morphine and lead have no marked effect upon it, not more than pilocarpine. Salicylic acid increases the proportion of sugar in the milk; alcohol increases the proportion of fatty matter. Morphine, pilocarpine and lead produce none of these effects; moreover, the iodide of potassium interferes with the secretion of milk. Alcohol is not eliminated with the milk, while the lead and the salicylic acid are so eliminated, in very small proportion.—*Revue Médicale.*

Selections.

ADDRESS BY DR. A. L. GIHON ON STATE MEDICINE. AMERICAN MEDICAL ASSOCIATION, Cleveland, June 6.

Superficial observers see in the question which has arisen in the State Medical Society, of New York, only an attempt to break down the guards which hedge in the kingship of our profession. They have, indeed, proclaimed afar that the time-honored traditions of the guild are to be ignored, and the right hand of fellowship given to the accursed unbeliever. A year has passed since this question arose, and the dignified body of which we form a part evaded meeting the issue face to face. A few voices were raised in explanation, but they were drowned in the cry: "Crucify him, crucify him! he breaks bread with a homœopath!" The august fathers of the Association frowned their displeasure, and the venerable puppets of antiquity were taken down from their dusty niches and displayed to exorcise this new demon of the nineteenth century. Outside the halls animated ex parte statements were circulated, and a thousand delegates went away believing that a few individuals in the city of New York, mainly specialists, for purposes of personal profit, were advocating the license to consult and confer with avowed homœopaths—this and nothing more. Since then the matter has acquired a newspaper notoriety, and it is blazoned to the world as a fact, that the delegates of the State and county medical societies of New York have disqualified themselves for association with us, because they have sanctioned the formal recognition of homœopaths in clinical conference—and the popular sympathy of the profession has been aroused against these mercenary innovators. It is, of course, the business of the Judicial

Council "to take cognizance of and decide all questions of an ethical or judicial character that may arise in connection with the Association;" but every member of the Association has an equal interest with these twenty-one in the inquiry into the causes which have induced some of the most exemplary members of the profession to their course. Is it, as alleged, that the code of ethics is an antiquated piece of verbosity? Does it really accomplish what it professed? Undoubtedly its purport was the exclusion from professional fellowship of all but those who are entitled to it by their intelligence, education, professional skill and acquirements, and that fearless probity that doth become a man. Has it done this? Does it do it to-day? Are there intelligent, educated, skillful, and upright men in the profession because of the code, or in spite of it? It is unquestionably true there are no homœopaths in the American Medical Association, but are there any allopaths there? Does it say "Brother" only to those who are fit to wear the mantle of the wise physician? These are questions for the Association to ask itself—and primarily it is for the State Medicine Section in its purview over medical education to discuss calmly, fearlessly, and thoroughly—and to go with its conclusions and announce them to the Association, however unpalatable or unpopular.

I do not propose at this time any formal criticism or arraignment of the code of ethics. Practically three lines only are the shibboleth which the elect are required to utter. "No one can be considered as a regular practitioner, or a fit associate in consultation, whose practice is based on an exclusive dogma." Prior to this it is stated that "a regular medical education is presumptive evidence of professional abilities and acquirements;" but you may read the fifteen pages of the code in vain for the definition of what constitutes "a regular medical education," and it is to this I now propose especially to limit my inquiry—whether, while straining at the gnat in the twelfth, thirteenth, and fourteenth lines of section 1, article 4, we have not swallowed a camel in the other eleven.

Before all, however, it is proper that I should satisfy you of my own right to thus sit in judgment, and for this I must first explain that the conditions for admission into the medical corps

of the navy are not of any exceptional or exclusive character, beyond the limitation of age between a minimum of twenty-one and a maximum of twenty-six, but are merely such as should be fulfilled by any young man who is certified in classic diction, by seven or more distinguished professional elders, to be *doctus in arte medica*—learned in medicine. The pre-requisites of respectability of character and correctness of deportment established by testimonials from citizens of known probity ought not to be considered superfluous even for the matriculant, while the modest scholastic acquirements insisted upon, rarely extending beyond a rudimentary familiarity with ortography, grammar, geography, and arithmetic, are not a tittle of what ought to be necessary preliminaries to the study of the first bone. The possession of a degree is not required, as it undoubtedly ought to be, and would be, did it carry with it any assurance of professional qualification—the code of ethics to the contrary notwithstanding. Why a degree, however regular in origin, is not considered satisfactory evidence of professional qualification, I expect to abundantly illustrate in this paper. Furthermore, the catholic liberty to compete for any position under the government has not allowed the board to decline to accept the candidacy of any individual claiming the ability to practice our art, and accordingly we have examined graduates of eclectic colleges and homœopathic colleges, as well as those who did not graduate at any college, who were thus permitted to stand on the same footing with other possessors of sheets of parchment, containing their names in a form they would not recognize and in a language they could not interpret. Though all such *irregulars* have failed to pass on examination, it is but just to state that the files of the department will show that they had no lack of peers in ignorance among the alumni of institutions of the most renowned name and unassailable regularity; and I fail to see how the board in any way countenanced these practitioners of any exclusive dogma, or lowered the prestige of our own exclusive possession of the only true faith, by consenting to demonstrate to these pretenders that they were really ignorant and incompetent.

I have selected from my notes samples of the replies of

twenty-five candidates—*doctores*, all of them—men certified to be learned in that noblest of all the sciences which engage the human intellect. I have endeavored to range them over as wide a field of inquiry as possible to show that it was not on abstruse or theoretical points on which the deficiencies were manifested. I have taken them from the graduates of schools in every section of the country, and those of established reputation, in order to prove that no one school, however exalted its rank, can claim exemption from the charge of having graduated grossly illiterate and incompetent men; and that diplomas have been sold, not cheaply and openly, as by Paine and his fellows, but still for a price, that price nominally two full courses of lectures—meaning two full sets of tickets, a matriculation and a graduation fee. I cannot, of course, say how many of these candidates actually fulfilled their implied obligation to attend lectures by sitting wearily on benches listening to discourses that must have been totally unintelligible to most of them, because I am not unjust enough to intimate that their professors did not honestly and faithfully fulfill their part by lecturing, but I do declare that their words fell like idle wind upon hearers such as these, and that the dolt who sat there throughout the course, or a part of it, or who did not even sit there but bought the ticket, issued forth, a full fledged doctor, the peer of the brightest, most industrious and most zealous student in the class. Some of the revelations of these examinations would be amusing were it not for the lamentable fact that many of their authors have for years been intrusted with the lives of their fellow beings, and this by the authority of the most respectable regular medical colleges in the United States.

To begin with the original seat of medical learning in this country. A graduate of one of the great schools, whose diploma was five years old, who had been recently prepared for examination, and whose demeanor evidenced the high opinion he held of his own abilities, stated that "the corpus callosum is that part of the dura mater which separates the cerebrum from the cerebellum"; that "the vertebral artery communicates with the cavernous sinus"; that "the membranous part of the urethra is below the triangular ligament, which is an extension of Gimbernat's

ligament"; and that "pneumothrax is a collection of pus in the chest."

A second from the same institution, four years graduated, informed us that "the principal muscles of the larynx are the vocal cords"; that "the one-seventieth of a drop of hydrocyanic acid is the dose for an adult, and the tenth of that the proper quantity for a child"; that "the boiling point of Fahrenheit is about 300 degrees, that of the Centigrade scale is not so high, and that of Reaumer higher"; that he "could not tell what the zero of Fahrenheit was was without having the other scales" before him; and that "the normal temperature of the human body is from 112° to 140°."

From a sister school in the same city came a gentleman well provided with testimonials of his social, literary and professional qualifications for the Naval Medical Corps, who stated that he did not remember the country nor the language of Hippocrates," that "Galen lived before him," and "Virgil died in the fifteenth century of the Christian era."

It was a graduate of this same school, who, indeed, brought letters to me from an esteemed friend, and deservedly distinguished physician in Philadelphia, who, having absented himself several days during his examination, on his return announced to the president that he had been ill with "cholera infantum," and gravely reiterated the statement, when, with some astonishment, I repeated the inquiry. * * *

A representative from a New England school announced that "phosphorus burns and makes nitrogen gas;" that "the crepitant rhoncus occurs whenever a membrane becomes dry;" and as a part of his academic education, that "Plymouth was settled by Columbus, who gave the town its name;" and that each State and Territory has one Senator, who is a man of great influence; one of this great influential body having, in fact, indorsed this learned doctor's competency to assume the care and responsibility of the sick of the Navy. * * * *

A graduate of another deservedly celebrated New York school announced that "Galen introduced vaccination or inoculation in the seventeenth century," and that Aristotle was some ancient philosopher who wrote a book," probably intending that "'mas-

ter-piece'" which naughty youths delight to read, while still another New England M.D. explained that "the conditions which would render bronchomoty necessary would be where a foreign body has lodged in one of the bronchial tubes. I know of but one method of performing it, and it is to cut down carefully, being guided by the physical signs and your anatomy, and after severing the bronchial tube in a longitudinal direction, I would remove the foreign body, and carefully close up the wound;" that an "astringent is a medicine which corrugates or contracts the tissues;" and that "to determine accurately whether a person be dead or not, a knowledge of anatomy and physiology is essential. One of the surest signs of death is complete cessation of the heart's action, accompanied with a cold surface of the skin, a blueness of the lips and fingers, and a *coldness of the teeth.*"

These examples were not especially collected for my present purpose. I have merely used such as I had casually jotted down on my memoranda. The notes of my colleagues, and the archives of the Burean of Medicine and Surgery can supply thousands of instances of professional incapacity where I have noted a hundred, and my successors of to-day upon the Board are having the same experience. Within a week, one wrote me that "the comic opera and minstrel performances are nothing compared to the Board entertainments." Ridiculous errors in orthography, inexcusable in a day laborer in this land of boasted educational facilities, are so common that one might believe correct spelling to be a refinement of culture. "What the hell has spelling to do with the practice of medicine?" demanded an irate member of Congress of the chief of the Bureau, Dr. Whelan, on being shown his protege's written work, and doubtless so thought the trustees of a charitable institution, widely known, who admitted into its resident medical staff, after competitive examination, a gentleman, the graduate from a university, who, two years subsequently, gave the board the following written evidence of his literary acquirements: *immergencies*, *attact*, *thare*, *redy*, *vigitable*, *xertion*, *urin*, *pluracy*, *deadly knight-shade*, and *expultion of its contence.* Without questioning that there are intellectual giants, who achieve greatness in certain careers, though unable to spell at all, it may be doubted whether the average mind accustomed to write *scas-*

sity, and *orful*, and *inturlec*, and *aurora epeleptica*, in total ignoranbe of their etymological significance, can ever succeed in comprehending the language which has come to be technical in every department of our science, and only errors such as these, and not mere phonetic mistakes, have, of course, been taken into account. Indeed, we did not decline to examine the candidate who addressed his letter to the *Navel mediclebord*, and subscribed himself, *Yours respectively*.

Of 1,141 candidates for the medical corps in the thirty years since 1853, only three hundred and seventy, or about thirty-two per cent., have been accepted. * * * *

Mr. Chairman: The time has come when this Association must be up and doing. A few medical schools have undertaken the reform, but the movement that has been inaugurated, notably by Harvard, will avail little, so long as the Association unconcernedly witnesses and indirectly countenances the wholesale manufacture of doctors elsewhere—by accepting their membership without question of their competence. The time has come when something more than paper bulwarks shall be considered defense for our orthodox stronghold, and proper partitions sufficient to separate the sheep from the goats. The time has come for us to act, and it is eminently proper that the section in State medicine shall be the scene of action. The discussion in New York has made it impossible for us to remain indifferent spectators. I trust that no member of this section has been misled into believing that any of the distinguished men who have taken part in this agitation have asked for anything that involves, in the least degree, any concession to the claims of homeœpathy, allopathy, or any other exclusive dogma; that none of them have suggested, advocated, or desired any arrangement that can provide for or permit the joint treatment in any case by themselves and homeœpaths, or any other paths. They have, however, claimed the right to give their opinion to any one who asks for it and is willing to pay for it—to tell any sick person what he thinks of his case, and what he considers ought to be done. In this, they give no sanction to the "irregular," whoever he may be, who has sought their advice, even though this irregular may be even wiser than that regular who castrates in orchitis, and gives his puerperal

woman a Russian bath. The very fact of his advice having been sought is an admission on the part of the irregular that he has done wrong or knows not what to do, and if, as alleged, these irregulars have not sought these consultations, then none will be, and the storm is but a tempest in a teapot. It is for you, however, to determine decisively whether you will place under the ban the man whose only offense has been to say to one of these irregulars, "You are doing wrong," or will exclude from the ranks of the profession that one of your distinguished colleagues in New York, who, when called in consultation in a case of difficult labor, requiring instrumental interference, did not stop to examine the diploma of the attending physician, but went to work, finding him an exceedingly expert assistant, and learned, when the patient had been rescued from danger, that he had been co-operating with a homeœpath; or will threaten the young road surgeon, who, at the close of the meeting at St. Paul, asked me whether he should operate in a case of caries of the tibia in a poor woman at a station where the only physician was a homeœpath, "Do it if you dare. You shall never cross our threshold if you do. Let her die first."

But I am only repeating a trite, thrice told tale. The necessity for reform in medical education is undeniable. Let us begin the work of reformation. If the American Medical Association is something more than a convivial assembly—if it is sitting here as a senate in serious delibration as to the interests of the profession—it can no longer ignore this question. Years ago your excellent committee, Drs. Davis, Toner, and Weatherby, and the committee of the Medical Society of the State of New York, Drs. Squibb, Eliot, and Bradford, provided for raising the standof preliminary education required of medical students by compelling preceptors to exclude from their offices all who fail to receive the certificate of a properly constituted board of censors, but the colleges must be coerced into doing their share. Harvard and the University of Pennsylvania will fight a hopeless battle if they are without allies.

It is for you to say to every one of these great schools and famous teachers, as well as to the petty schools andtheir tyros in teaching, you must, and at once, set the example of reform;

require a preliminary, scholastic training of your matriculants; appoint examining boards who shall have no pecuniary interest in the size of your graduating classes; make your examinations in part written, to remain on record as evidence of the candidate's ability or lack of it; and insist upon a practical familiarity of the novice with the tools of his art, its drugs, and apparatus and instruments. For a while there will be a falling off in revenue, but the code of ethics denounces the prostitution of our calling for sordid purposes. And what more mercenary spectacle can there be than that witnessed at the close of a college session, when, with blessings and music, and big boquets, a new battallion of doctors marches forth commissioned to guard the most solemn responsibilities humanity offers.

In furtherence of these objects, I beg to offer the following resolutions, to be referred to the Association, should the section on State medicine give them its approval.

Resolved, That the section in State medicine urges upon the Association the necessity for at once taking steps to exclude unqualified members from the profession by refusing fellowship to illiterate, ignorant and incompetent graduates.

Resolved, That the Association be recommended to authorized the section in State medicine to act as a standing committee on medical education, the several elected members being required to communicate without delay (I.) with the several State medical societies and the legislatures of the States they respectively represent, with the object of creating State boards of medical examiners, where such are not already in existence, whose certificate shall be necessary to the issue of a license to practice medicine in that State; and (II.) with the authorities of every regularly organized medical college in the State which has not already taken such action, urging upon them, first, the requirement of a proper preliminary education of matriculants, to embrace, at least, a knowledge of English othography and grammar, the etymology of the more common Greek and Latin derivations, and the fundamental rules of arithmetic, to be ascertained by a written examination preserved for reference; and, second, greater care in ascertaining the fitness of candidates for a degree by making their final examination in part a written one, to be kept on

record and accessible for inspection by the State board of medical examiners, board of censors of medical societies, or authorized persons requiring information as to the professional qualifications of graduates.

Resolved, That in the opinion of the American Medical Association, medical colleges should confer upon graduates the degree of *Batchelor in Medicine*, such graduates to be eligable to the degree of *Doctor of Medicine* at the end of three years, after having given satisfactory evidence of their qualification to the board of censors of the State medical society.

Resolved, That article 2 of the plan of organization of the American Medical Association be amended by this additional provisio:

Provided, That every permanently organized State, county or district medical society entitled to representation in this Association shall be required to appoint a board of censors, who shall rigidly scrutinize the literary and professional qualifications of every candidate for membership therein, and hereafter no delegate shall be admitted to a seat in this Association who shall not have received the certificate of such a board of censors, or of a State or National board of medical examiners.

Drs. Rauch, of Illinois; Billings of the United States Army; Tuckerman, of Ohio; Hibbard, of Indiana; Hicks, of Pennsylvania; Shcean, of New York; and Bush, of Delaware, discussed the resolutions, when further action was postponed until to-morrow.

TRANSACTIONS OF THE OBSTETRICAL AND GYNÆCOLOGICAL SOCIETY OF WASHINGTON, D. C. Stated Meeting, held November 17, 1882.

Dr. Jos. Taber Johnson read a long and interesting paper, giving a successful case of

BATTEY'S OPERATION,

occurring in his practice last August.

The case presents the following history: The case was first seen by Dr. Johnson, in consultation with Dr. J. R. Riley, in June, 1882. Miss M. was an unmarried lady, twenty-nine years

of age, and gave a history of ovarian pain and convulsions reaching back to date of puberty. She had been under the care of many physicians in Pennsylvania, her home, but had never been relieved. She was constantly growing worse, and had become a great burden to herself and friends. Her mental faculties had lost their vigor, and she presented a facial appearance much resembling a confirmed epileptic. Her constant pain, increasing at menstrual periods into agony, finally culminating in spasms, during the days of the flow, had destroyed all pleasure in living, and she looked forward to an early death as her only relief. Her pain and eclampsia were aggravated by an unrelieved menstrual molimen. For several months last year she had no flow, and during that time grew rapidly worse.

Her pain was only controlled by large doses of morphia, chloral or alcohol. Life was unendurable without these remedies, and they obtained for her but temporary comfort.

After a careful examination, Dr. Johnson expressed the opinion that the only hope of cure was in the removal of the ovaries, and he fully explained the dangers attending the operation. Miss M. desired to have the operation performed at once, if it presented even a ray of hope. She much preferred to die than to live on in the pain she was enduring. Life had no charms for her. The price she was compelled to pay for its continuance robbed death of all its horrors; indeed, she welcomed its approach as the only means of escape from a condition worse than death to her. After various consultations with physicians, friends and relatives, it was finally determined to operate, and on the 17th of August, 1882, Dr. Johnson removed both ovaries and one Fallopian tube by the abdominal section, the patient being in a private room in the Providence Hospital, of which institution Dr. J. is gynæcologist. The patient made a good recovery, and has since been well. She has had no sign of menstrual flow, and scarcely a sign of convulsions, since leaving the hospital. Has had a number of momentary attacks, without becoming unconscious or falling. She is now cheerful, happy, very grateful, and a useful member of the household—caring for others, instead of, as heretofore, being constantly cared for.

The President requested Dr. King to open the discussion.

Dr. King said that he felt certain he did not know as much on the subject under discussion as Dr. Johnson, who deserved to be specially complimented for the manner in which he had handled his subject, and for the skill with which he had performed the operation, the operation being the first of the kind in this District, and at the same time successful. He had no personal experience with the operation, and hence had but little to say; in fact, after the careful, elaborate paper just read, there was very little left to be said. In a curious book by Dr. Bulwer, published in 1623, the castration of women was treated of, although the subject was not handled from a scientific standpoint, and it was doubtful whether the cases reported were reliable. One of the cases given was amusing. A man had castrated a woman, and was brought to trial for it. The justices were greatly troubled about it, because there was no law against castration of women, although there was one against castration of males. They finally solved the difficulty by hanging him for stealing apples from the woman. The old historians told us that the king of Lydia kept castrated women. Female castration was also referred to by Hesychius, Athenæus, Aristotle, Suidas, Galen and others. All this seemed to show that the spaying of women was not a modern practice, but Battey's operation was novel in this, that it was undertaken for beneficent and curative purposes. Battey, in his paper read before the International Congress in London, in 1881, had collected all the cases from 1872 to 1881, given by different operators, 218 in all, of which, however, 25 were "incomplete" operations. Of the total 218, there were 26 in which the element of epilepsy (either with or without other abnormalities) was present. Of these 26 epileptic cases, over two-thirds are said to have been relieved by the operation, the record being as follows: Died, 4; cured, 14; improved, 4; not improved, 2; not cured, 1; not stated, 1. The mortality of the whole 218 cases contained in Battey's list, of which 10 were his own operations, was 18 per cent. Dr. King said that he could not criticise either the operation or Dr. Johnson's case; the result showed that the doctor had done well. At the same time, the necessity for such an operation was a sad commentary on the boasted scientific knowledge of the age, an age so full of ad-

vances in pathology, hygiene, therapeutics, materia medica, etc., inasmuch as we had to come to it at last, and conclude that with all our knowledge, nothing remained but to castrate. It seemed that so far we had failed to understand the causes, pathology, therapeutics and hygiene of these troubles, so that nothing was left but surgical interference. And, above all, it was an operation not confined to the old, but practiced upon young women between twenty and thirty, and upon some even in their teens. They were unsexed so far as reproduction was concerned, and rendered barren for life. True, some of the patients in the incomplete cases had afterward married and borne children. The great danger lay in this, that the successes might cause it to be a hobby ridden too much, a thing that happened when the Cæsarean operation first became popular in France; then the operation was said to have become as common as blood-letting. The danger in Battey's operation was the temptation held out to relieve the symptoms at once by the brilliant operation of oöphorectomy, and we might easily go to extremes in this matter. Take cases of epilepsy; was it frequent to spay men for this trouble? Yet we know that many cases depended on sexual excitations, and we know that this could often be kept down by long-continued and large doses of bromide of potassium. He thought the treatment ought to be urged, that the bromide should at least be kept up for years, just as we did in male patients, before resorting to castration. The question had occurred to him, whether ligation of the uterine and spermatic arteries would not be equally effective. Still, there was, perhaps, danger in ligatures, and beside this, the collateral circulation might be re-established. The idea was not new with him. Simpson had proposed ligature of the ovary, although Dr. King did not quite understand whether he meant ligation in bulk or of the vessels. Bartlett had successfully ligated the ovaries and cured his patient. As to myoma being an indication for the operation, he did not think that it was set down that mere development or rapid growth of such a tumor was an indication, unless there was dangerous hæmorrhage. As to Battey's report, showing all the cases he could collect, it was but natural that a man with a new operation would look upon the bright side of the subject. Then, again, all the cases had oc-

curred within the last ten years. What would these women be in twenty years? For, while it was true that the operation had led to no special results in animals, we could not tell what would finally happen in women.

Dr. Kleinschmidt said it had been his privilege to be present at the operation, and he had also the opportunity of seeing the patient since, having visited her on yesterday with Dr. Johnson. The change in her facial expression was remarkable, and he certainly would not have known the woman, although he had looked right in her face during the operation. Her face had lost the low, almost brutish expression which was so striking when he first saw her upon the operating-table; and when she entered the room yesterday she wore a pleasant smile, and appeared very cheerful. Upon inquiry, she informed them that all her former severe attacks had left her; that she had slight attacks, lasting a minute or so, at the time of her former menstrual discharges, and that the last but one menstrual period had passed off without any attack. She could now take care of herself, and was not obliged to have some one constantly watching her. Dr. K. said that while, as regarding a perfect relief from these nervous attacks, the operation might not be called a complete success, yet it certainly was successful in this, that it had converted severe epileptiform seizures, most of them lasting from four to six hours at a time, during which it required several persons to hold her, into attacks of what our French brethren called *petit mal*, passing off in a few minutes, or even seconds, and consisting simply in a temporary loss of consciousness.

Dr. King would add to what he had said, that, almost immediately after Dr. Battey had read his paper before the International Congress, Dr. Grailey Hewitt read a paper on cases of hystero-epilepsy due to flexions of the uterus, which were cured by the use of an appropriate pessary.

Dr. Busey inquired, How would the operation do in vaginismus?

Dr. Ashford had not heard Dr. Johnson's paper read. He was, however, present at the operation, and was struck by the brilliant and successful manner in which it was done. He did not at that time consider that it was a fair test in the case under discussion, and thought that, had it failed altogether in relieving

the nervous symptoms, it would have been no proof against the propriety of operating in these cases. Although he advised it in this case, he yet had doubts as to its success, because it looked to him as if the brain was seriously affected, and hence he could not see how success could be looked for. Still, it was one of those rare cases where patient, friends, and medical attendants all were anxious to have something done for her relief, so that almost any procedure looking to that end was justified, after failure of all ordinary means. Practically, he knew nothing of the operation, and very little of its bibliography, but he thought that Dr. King's remarks as to the danger of its becoming too popular were pertinent. Thus, he had noticed, in looking over the journals, that during the last year or two, the indications for which the operation was advised had greatly increased in number. At first the indications were laid down in narrow limits; now the limits were becoming much more extensive, whether from the results obtained or from mere speculations. The history of the operation itself certainly did not give a wide range of indications for it. It appeared less indicated in hystero-epilepsy than in uterine growths, where the induction of the menopause was a good reason for its performance, as shown by the results obtained, for the growths had ceased to enlarge, even if they had not become actually reduced. He held that the indications were stronger in epilepsy induced by ovulation, than in cases where the attacks of epilepsy occurred more frequently. It was also indicated in cases of absence of the uterus and atresia vaginæ, where the appearance of the menses caused serious trouble. In some cases of his own, he had had the operation in mind in order to relieve the hæmorrhage due to uterine fibroids, and had advised the patient to have it done. In one of these cases, he forgot that he had first advised against it, and she was now in charge of Dr. J. T. Johnson. He did not know whether the doctor had relieved her by treatment. The great good of Dr. Johnson's paper was that it set us all to thinking over the operation, and the probable and possible indications for it.

Dr. Louis Mackall (by request) said that he had listened to and learned a great deal that was interesting from the paper, and expressed his thanks to the author for it. He felt that he was

unable to add anything to the subject. No doubt the operation would prove a boon to humanity; still, it was a question in his mind whether all the diseased conditions for which the operation was undertaken were likely to be benefited by its performance. Hystero-epilepsy, as we knew, did not have its seat in the ovaries; the condition of the latter simply furnished the exciting causes for the attacks. The real trouble lay in the condition of the nervous system, which in some of its parts was in an unstable molecular state. He would also remind us, that we again and again met with cases of epilepsy where the seizures occurred day after day, and in greater and greater severity, until finally the intellect was all but destroyed, when the patients had a brutish look, and when all therapeutic means had been exhausted in vain. Such a patient would perhaps be sent West to some quack, and by and by we would hear that under the care of this man he was greatly improved, that this improvement lasted for months, until finally he returned looking well, and showing by his actions that he was in all respects vastly improved. This apparent recovery would go on for a time, and then, gradually, the man would fall back to his former condition. Then, very likely, another quack would be tried, and again improvement would take place. All of us, no doubt, knew of such cases and were surprised at the results. It was necessary, therefore, to wait some time before we could finally decide upon the success of this operation in any given case. It might be that by the removal of the ovaries a certain beneficial impression might be made upon the central nervous system, something similar to what we saw in some cases of trephining for epilepsy, where good results followed, even though no evidence of pressure on the brain was found. These remarks, however, he did not intend as a reflection upon the operation. There was one class of cases, not referred to, in which he deemed the operation perfectly justifiable, viz., a displaced ovary which caused intense suffering when bound down in Douglas' fossa. Here, as a rule, only one ovary need be removed, and by way of the vagina. There was one statement made by the doctor in regard to the vaginal operation, that it was less dangerous than the abdominal section. He had seen in a recent medical journal statements of a contrary character.

Dr. Ashford said that it was claimed that the results obtained by the vaginal method were not as good, but that the operation itself was less fatal than the abdominal section.

Dr. J. T. Johnson.—The mortality, as given, was 17 per cent. for the vaginal, and 24 per cent. for the abdominal operation.

Dr. Ashford drew attention to the condition of the ovaries in Dr. Johnson's case. In some cases they were normal, hence the name of "normal ovariotomy" given to the operation; but in most of the cases there was a diseased condition, and in these the success of the operation had been greatest; in other words, the disease here depended upon the abnormal condition of the ovaries.

Dr. W. W. Johnston stated, as a curious coincidence, that there were now in this room specimens of the first ovariotomy performed in Washington, by Dr. May, and of the first oöphorectomy performed here. In Dr. May's case the operation was easy and the patient recovered. The case had never been published.

Dr. Mackall inquired whether there were not among the cases reported some of displaced ovaries.

Dr. J. T. Johnson, in reply, stated that the operation had been done for the relief of that condition, and the suggestion was made to remove them by the less dangerous vaginal route. We could feel the organ in Douglas' fossa, and easily cut down upon it, while, if we attempted to reach it by laparotomy, we would be obliged to hunt for it in the pelvic fossa, and the adhesions might render the operation a very bloody one. In hernia of the ovary, the operation was also easy. In closing the discussion, he said he was indebted to the Society for the kind remarks made. He would never have undertaken the operation, had he not had the encouraging advice of his friends, all of whom urged it. He must thank his assistants at the operation itself. It was said that no one knew, in a case of this kind, what he would find upon opening the abdominal cavity; in his own case, fortunately, everything was easy, so much so that he was almost afraid it might turn his own head. When, in his paper, he had spoken of the difficulties of the operation as pointed out by Spencer Wells and others, he had no idea of lauding his own good fortune and success, for in his case all was perfectly plain sailing. The name "normal ovariotomy" would not apply here, for there were cysts

in the ovaries, the broad ligament, and the Fallopian tube. Some of these, in time, might have enlarged and finally produced a large tumor. His patient had suffered for sixteen years. But even if it had only been known that these cysts existed, the operation would have been justifiable.—*Am. Journal of Obstetrics.*

ELECTRICITY IN UTERINE DISPLACEMENTS.* By E. A. BARTLETT, M. D., Albany.

The frequency with which disease of the uterus and its appendages are prominent causes in the ill health of women is erroneously regarded by physicians. There are those who see these as causes in every ailing woman, and there are others who seem never to take them into consideration Others, from feelings of delicacy in approaching the subject, or for other reasons, try to make themselves believe that there is some other cause for the obscure symptoms by which they are confronted.

These are all false positions. However rarely or frequently they may be factors in ill health, it is the experience of every practitioner that uterine diseases may be the source of many remote, subjective symptoms; and, if a patient has persistent mysterious symptoms for which no adequate cause can be found, and which do not give way under a general course of treatment, we are not only justified in directing our attention to the pelvis, but we are in duty bound to do so. In many cases the pain in the loins, dragging of the viscera, almost constant backache and other characteristics tell too plainly where the seat of trouble is. Mal-positions are found in a large percentage of these cases, and it is to the *rationale* of electricity in their treatment that your attention is invited.

Adopting Simpson's division, we have two classes of displacements—*versions* and *flexions*, the latter being not an exaggeration of the former, but an entirely separate condition. In the former the uterus may be turned upside down and still the canal be relatively straight, while in the latter the canal is bent upon

*Read before the Albany Academy of Medicine.

itself at more or less of an angle. This fact is important, because it points to various causations, and necessitates treatment peculiar to the case. These mal-positions may be due to a variety of causes. In the poorly developed uterus anteversion is about in proportion to the want of development, but in far the greater number of cases they are due to congestion, engorgement and hypertrophy. The veins of the uterus are normally of large size, and as a result of carelessness during the puerperal and menstrual periods they are only partially emptied, venous congestion takes place, the organ is engorged, and there may follow hypertrophy of tissue. Any cause producing relaxation of the suspensory ligaments and the vaginal walls finds an admirable ally in this overburdened uterus, and version is the result. If, however, there has taken place degeneration in the muscular fiber of the uterus, flexion will be the result.

It cannot be denied that the general treatment by a prolonged course of chalybeates and stimulation of the uterus, while successful in some cases of displacement from a partially developed uterus, is in more of the same kind totally inadequate. It is only too true that in the hands of very many practitioners the use of pessaries, whose number and form is legion, is followed by the most unsatisfactory and sometimes the most unhappy results. It is the experience of the very best gynæcologists that elytrorrhaphy. scarification and such like operations are insufficient in many cases to bring about desired results. And so it happens that, without thought of superseding any of these methods mentioned, electricity has been enrolled in the list of useful remedies. For a long time it had been used by persons outside the medical profession, and indeed it was the beneficent results so obtained that centered the professional mind upon its use in this special department. Much of this use has been empirical; the details of its action were not sought for; the excellent results sufficed.

We know that electricity acts, when passed through the human body, either mechanically or chemically, either directly upon the organs or indirectly through the nerves. Now, if we remember what conditions exist in a displacement and some of the principal causes, we shall surmise that the use of electricity

will be followed by very satisfactory results in many cases, but we shall also realize that there will occur many cases in which electricity alone would be just as powerless as any other application. In an extreme case of version or flexion it is manifest any conceivable application of electricity would, of itself, be useless to accomplish reposition. Were the supports to the uterus composed of muscular fiber, and were they in a condition of extreme relaxation, there might be a possibility of causing sufficient contraction to bring the organ into place. This is not the case; a portion of the ligaments supporting the uterus are simply folds of peritoneum containing no muscular fiber of their own, while others are the usual ligamentous tissue; both have some muscular fiber prolonged upon them from the uterine walls, which may be excited sufficiently to render some service in slight versions, but in severe or extreme cases they are of no appreciable service.

The foregoing is a true statement of facts; nevertheless, experience teaches us that an ante-, retro- or lateroverted uterus, if not too far gone, can be replaced under the use of electricity, and this, in many cases, applied only exteriorly. How is this result produced? Placing one electrode of a faradic machine upon the lower lumber vertebræ and the other upon either inguinal or hypogastric region, let the circuit through the primary coil be closed; there will be felt, if the current be sufficiently strong, a sharp contraction under the latter electrode. This has by some been assumed to be the action of the uterus and its supports; the assumption, however, is manifestly erroneous. As we have seen there are no muscular fibers in the uterine supports to contract, or at least not enough to cause so violent a contraction; and the uterus lies so deep in the pelvis that the contraction of its fibers would be much less perceptible externally than what we notice. The assumption is partly due to the results obtained in the obstetric use of electricity, where the contractile effects upon the uterine walls are of such marked character. The cases are not parallel, for during parturition the uterus is in the abdominal cavity, where its contractions can be plainly felt, which is not the case here.

If we look at the anatomical disposition of the parts, we shall

find that we have under the electrode, when it is in the left inguinal region, the superficial and deep abdominal muscles and below them the sigmoid flexure of the colon; in the right inguinal region the corresponding muscles and beneath, the cæcum; in the hypogastric region, the rectus abdominis and pyramidalis muscles and beneath, the bladder. If we place this electrode upon any portion of the abdomen we shall note, under the same conditions, the same phenomena of contraction, and, if the action be prolonged and extended over the whole abdomen, it will bring about the act of defecation, or a desire for it. This would tend to show that the contraction here takes place in the muscles which constitute the abdominal parietes and also in the muscular coat of the intestines. What is true of this part is also true of the other part of the abdomen. The contraction felt there is not in the uterus and its supports. If, however, we insert a finger in the vagina and place it in contact with the uterus, we shall feel a slight thrill and decided contraction of the walls of the uterus analagous to the sensation received during a labor pain; but this contraction is not sufficient nor in the proper tissue to replace the organ, supposing it to be displaced; so we must seek further for the remedial cause.

Examples are not wanting of the power of electricity, both galvanic and faradic, to relieve engorged and even hypertrophied tissue. Galvanism, by its subtle chemical, and faradization by its mechanical action, are capable of improving nutrition, stimulating muscular contraction and hastening absorption. Here, then, we have a rational and tenable method by which electricity may be of great service. The modification of nutrition caused by electricity may have two opposite effects; it may cause increase or it may caused iminution in the size of a part or organ. In these opposite results there is nothing inconsistent; they are the result of healthy nutrition caused by the current.

If we place the electrodes as before, the hypogastric plexus of nerves, from which pass the nerves innervating the uterus and vagina, lying directly in front of the sacrum, is in the field of action for the current. It is just here that Budge and Waller located the genito-spinal center. The electricity conducted along these nerves to the uterus and vagina there does its rem-

edial work, contracting muscles, altering nutrition and increasing the tone of the relaxed ligaments. Thus stimulated, the displaced organ regains its normal size, and, slowly perhaps, but surely, returns to its proper place.

This method of external application is especially serviceable in vaginal cases and with timid women, but in very rebellious cases, and with married women generally, the introduction of an electrode to the vagina will be found much more efficacious. Not only is the muscular coat of the vaginal walls made to recover its tone, and thus one of the best supports provided for the uterus, but an internal application brings the organs directly under the action of such pole as their condition may require, and enables us to produce somewhat more rapidly tissue changes. Moreover, the chemical effects of the galvanic current upon the secretions of the mucous membrane and the contiguous glands may be utilized by this means, remembering the differential polar action. In like manner, the insertion of one electrode into the rectum or bladder enables the operator to localize the action very strictly and produce marked results.

It is well known that if a strong galvanic current, passing through the pelvic viscera, be suddenly interrupted there will be produced a "coppery" taste in the mouth. This phenomenon may be made to "point a moral." The hypogastric plexus, of which we have spoken, recieves fibers from the spinal nerve, and the vaginal branch has a large number. The diffusion of galvanism along these fibers to the nerves, and thus to the cord, serves to put the spinal cord in an electronic condition, and this irritability modifies decidedly the subjective symptoms accompanying uterine disease. This is really an important feature in the *rationale* of electricity in uterine displacements, and accounts somewhat for the prompt relief which so often follows this kind of treatment, of the despondency accompanying these cases, and which is one of the great drawbacks to calling the attention of a young woman to the fact that she is a subject of "female weakness." But it would be unwise to depend upon this "diffusion of current" for relief of subjective and remote symptoms. The operator who confines himself to localized treatment of uterine disease, neglecting thorough general treatment, sacrifices

much of the beneficial effect of electricity. If it is necessary to produce mechanical effects, local faradization is indicated; for local chemical effects, galvanism; but this is only a small part of the work of restoration. The connection with, and relation to, other organs and parts of the body of the organs of generation are so intimate, and derangement here is followed by so much disturbance elsewhere that general treatment of some sort becomes essential. In the form of electricity addressed either to the cerebro-spinal axis or the sympathetic system we have a valuable auxiliary whose use hastens recovery. In conclusion, time is essential in any form of treatment for these cases, and the patient may be given to understand that relief is not the result of a few days, but of weeks or months.—*Med. Annals.*

INTRA-UTERINE INJECTIONS IN THE TREATMENT OF PUERPERAL SEPTICÆMIA. BY T. GAILLARD THOMAS, M. D., Clinical Professor of Gynæcology in the College of Physicians and Surgeons, New York.

The following case seems to me to illustrate what should be the accepted treatment of puerperal fever, or puerperal septicæmia, at the present day. The case was that of a lady in the higher walks of life whom I was called to see about a month ago, in consultation by her physician, a man of wide experience. She was a primipara, was taken in labor at four o'clock Sunday afternoon, and at nine o'clock in the evening was delivered of a female child, without any difficulty or assistance. Her physician examined the external genitalia carefully, and found no tear whatever. The nurse was instructed to syringe out the vagina carefully the next day with carbolized water, which she did. The first forty-eight hours passed by without any bad symptoms at all, but, on visiting her on Tuesday morning, the physician found a temperature of 101° F., and in the evening it had risen to 102.5°. The next morning, the morning of the fourth day, the temperature was 103°, and the patient began to complain of a very severe pain in the right iliac fossa. There had been no chill. At five o'clock in the afternoon the temperature was 106.5°

in the mouth. The patient's appearance became wild, as of one who was about to have puerperal mania; the skin was hot, and she was crying out with pain, although she had received a good deal of morphine.

Having been called to see the patient, I took the temperature in the mouth myself, and confirmed the record of her physician, that it was 106.5°. The pulse was 145. Making a vaginal examination, I found a bilateral laceration of the cervix uteri extending nearly up the vaginal junction. Probably this extensive laceration partly accounted for the rapidity and the ease of the labor as occurring in a primipara. I urged that the uterus should be washed out with carbolized water at once, but her physician had never seen the method practiced, and was strongly prejudiced against it; he finally consented only because it was apparent that unless something decided was done the patient would soon die. Using the Chamberlain tube and the Davidson syringe, Dr. Jones, and afterward Dr. McCosh, continued to wash out the uterus with carbolized water every four hours during the night, and the next morning the temperature was found to have sunk from 106,5° to 101°; the pulse had fallen from 145 to 120; the patient, who had been given opium quite freely during the night, declared that she was very much relieved. Indeed, the relief had been so extraordinary that they began to believe that the danger was not real at all; and that exceptional circumstance had occurred, and that there was no septicæmia. The uterus was now washed out at longer intervals, but ato nce the temperature went up to 102°, 103°, 104° and 105°, and the patient again began to look maniacal. The uterus was now washed out every three hours, opium was freely administered, ten grains of quinine were administered every eight hours, ice water was passed through a coil of rubber tubing placed over the abdomen; and as long as this treatment was kept up the temperature did not rise above 101° or 102°, but as soon as they ceased to wash out the uterus the temperature at once rose to 104°, and at times to 105°. This fact was proved by repeated trials.

After this treatment had been continued for ten days, a physician remaining with the patient day and night, giving the inject-

ions every three hours, and thirty grains of quinine during the course of the day, it was believed to be time to stop it; but in less than twenty-four hours the temperature again arose to 105°. I mention the amount of quinine which was being taken particularly, so as to prove positively that there was nothing of a malarial character in the case at all. On the sixteenth day after delivery, the tenth day after the commencement of the high temperature, the intervals between the uterine injections were extended from three hours to four, then to five, six and seven hours, and finally they were discontinued altogether, and at the same time the administration of quinine was given up and the coiled tubing was taken off. Opium was continued in small doses for a while longer, and the patient recovered entirely.

I wish to contrast this case with another which I saw just before—that of a woman who had been recently delivered of her third child. When I was called to see the patient the temperature was 106°; she had been taken with violent pain in one iliac fossa, and had been put five days before pretty profoundly under the influence of opium, and a blister had been applied over the whole of the abdomen. Large doses of quinine had likewise been administered. When I saw the patient, the use of intra-uterine injections was begun at once, but the patient lived only twenty-four hours and died in a state of coma.

It seems to me that the time has arrived when puerperal septicæmia should be treated upon just as simple a plan as septicæmia of any other kind is, namely, by washing with some antiseptic fluid the surface where the disease originates—some fluid which will remove the poisonous material which is being absorbed, and also, so far as possible, neutralize its poisonous qualities. In brief, I would say that puerperal septicæmia, with our present light on the subject, should be treated in the following manner: First, wash out the uterine cavity completely with some antiseptic fluid; second, quiet all pain by opium; third, get the peculiar influence of quinine upon the nervous system; and, fourth, keep temperature, at all hazards, at or below 100° by the methods which we now possess. Three years ago, at the American Gynæcological Society, which met in Baltimore, I took the ground which I take to-day regarding this subject, and only one gentle-

man in the entire society supported my view. Every other member who spoke referred to the dangers of introducing air into the uterine sinuses during the injection, etc. But I believe that the dangers attending the use of the injections are counterbalanced by the benefits to be derived. I do not think there is the leas probability that air will be introduced if a tube of a large size—as large as the finger—is used. But when a catheter is employed there is some danger in inserting it into a sinus and introducing air and fluid together directly into the vessels.—*New York Med Jour.*

INHERITANCE OF CANCER.—In the course of a paper on the Local Origin of Malignant Growths, read in the section of pathology at the last annual meeting of the British Medical Association, Mr. Jonathan Hutchinson observed: "It is needful to say a few words as to the inheritance of cancer in its bearings upon the doctrine of its local origin, since an adverse argument has been founded upon it. It has been urged with much plausibility, that a disease which is capable of inheritance must be a constitutional one. No doubt, to some extent, this is true; but the argument must not be pushed beyond its legitimate scope. The laws of inheritance, as with property, so with disease, concern convection, and not origin or production. The inheritance of a fortune is a very different thing from its acquisition, and gives us no clue as to how that may have been accomplished. The causes of cancer, as we meet with it in practice, may, perhaps, be usefully classed as three; senility of tissue, local irritation, and inheritance. Of these, only the first two can rank as true causes; the latter, although practically of great importance, is only a mode of perpetuation of that which the other two have originated. Senility gives proclivity, local irritation excites, and subsequently hereditary transmission may perpetuate. The facts, as regards chimney-sweeps' cancer, give perhaps the best illustration of what I mean. Before this malady was partially suppressed by act of Parliament, I believe it was commonly noted that when the trade of sweep went, as it often did, in a family, proneness to suffer from soot-warts, and for soot-warts to degenerate into cancer,

increased in succesive generations. Grandsons and great-grandsons were attacked at earlier ages, and with much greater frequency, than those who were new to the trade. Here, then, we observe the liability to a form of cancer, produced in the first instance by a local cause, perpetuated and intensified by hereditary transmission. We witness the genesis of cancer, and see the shares taken by local irritation and inheritance, and how entirely secondary the latter is as regards the former. If we ask what it is which is inherited in the transmission of cancer, probably the nearest approach to an answer which can be given, will be to say that it is a peculiarity in cell-structure generally; not germs; not a blood-malady, but a special type of cell organization, permitting, with greater ease than in other persons, the injurious influence of local causes. Even in the sweep, whose forefathers have suffered from soot cancer, the transmitted tendency still waits for the exciting cause, and the disease occurs, not in internal and therefore protected parts, but on the same part as it did in his great-grandfather, and under the direct influence of exactly the same cause. Not that I would for one moment doubt that, in some instances, the inherited proclivity may be so strong, that it does not wait for the help of any exciting causes, but manifests its power in the production of a cancer which may be considered spontaneous. It is probable that in this way we ought to explain almost all cases of cancer occurring in very early life; and it may be the fact that, in a few of these, something more definite than tissue proclivity may be transmitted, possibly even germinal matter, especially in those cases in which the parent was the subject of the malady. Thus, then, although I fully admit that in the examination of our patients we must make large allowance for the influence of inheritance, I wholly deny that we can allow it rank as a true cause of cancer."—*British Medical Journal.*

ON PICRIC ACID AS A TEST FOR ALBUMEN AND SUGAR IN THE URINE. BY GEORGE JOHNSON, M.D., F.R.S.—For the detection of albumen, Dr. Johnson recommends that this acid should "be used in the form of a saturated aqueous solution, or

in the form of powder or crystals. The aqueous solution is most suitable for home use, while the powder or crystals may conveniently be carried in a urinary pocket test-case. A saturated aqueous solution may be quickly made by adding about fifty times the bulk of boiling distilled or rain water to the powder or crystals; a portion of the acid will crystallize out on cooling, leaving a transparent yellow supernatant liquid. This solution being added to an equal volume of albuminous urine in a test-tube, immediately coagulates the albumen. The coagulated picrate of albumen is soluble in alkalies; if, therefore, the urine be highly alkaline, it must be acidulated by a vegetable or a mineral acid before adding the picric acid solution. In my numerous testings for albumen with picric acid, I have not once found it necessary to acidulate the urine. The picric acid solution is itself sufficiently acid to dissolve the phosphatic sediment which results from boiling a neutral or alkaline specimen of urine. To detect a very minute quantity of albumen, the following method is the best: Into a test-tube about six inches long, the urine is poured to within two inches of the top; then, the tube being held in a slanting position, about an inch of the picric acid solution is gently poured on the surface of the urine, where, in consequence of its low specific gravity (1003), it only partly mixes with the upper layer of the urine; and, as far as the yellow color of the picric solution extends, there will be more or less turbidity from coagulated albumen, contrasting with the pellucid sustained urine below. If, then, the tube be placed in a stand, the coagulated albumen will gradually subside, and form a delicate horizontal film at the junction of the colored and the unstained stratum of urine, the yellow liquid above and the uncolored urine below being quite free from turbidity. If the urine should be turbid with urates, it must be cleared by heat before the addition of the picric acid solution.

"As a result of numerous observations, I have arrived at the conclusion that the picric acid supplied in this way is a more delicate, and therefore more trustworthy, test for albumen than nitric acid in cold urine, whether the latter be employed by the method of dropping the acid into the cold urine, or by pouring the urine on the acid previously placed in the tube. The simplest and most satisfactory mode of comparing the two tests as

regards their relative delicacy, is to dilute a specimen of albumi- found that the picric acid solution shows the presence of albumen in a specimen diluted considerably beyond the point at which the nitric acid fails to give any indication. The picric acid, too, often causes an immediate albuminous opalescence in specimens in which nitric acid only slowly, and after an interval of some minutes, gives a similar, but sometimes a doubtful, indication." Dr. Johnson also describes a new process by which picric acid can be employed for detecting the presence of glucose in the urine. —*British Medical Journal.*

ON THE CO-EXISTENCE OR SEQUENCE OF DIFFERENT FORMS OF SKIN DISEASES.—Dr. J. K. Spender, of the Bath Mineral Water Hospital, describes a "Case of Lichen Psoriasis," at that hospital, which occurred in a man aged 44. The symptoms of psoriasis soon disappeared under hydro-therapeutic treatment, but the battery had little control over that part of the eruption which might be correctly termed lichen. The author continues: "I have had lately, in private practice, a case which illustrates the way in which accidental circumstances may cause different forms of skin-diseases to succeed each other. A retired farmer, aged 80, very temperate in all his ways, became depressed and generally out of health at the beginning of this January. In a few days, there was an acute eruption of lichen over a large part of the body, but most severely, perhaps, on the upper arms, on the flexure side of the elbows, and about the wrists. There was a rough symmetry in the grouping of the papules, which were sufficiently red and multitudinous to deserve the name of lichen agrius. There was not so much pruritus as a general heat or smarting; and as if to exhibit the eczematous or boiling-over process, which any form of skin-congestion may undergo, a large vesicle was developed on the front of each wrist among a crowd of angry papules. After a few days, the lichenous eruption desquamated on the arms as cleanly and decisively as if it were the sequel of a specific fever. On January 21st, small bullæ of pemphigus were seen on the back of both wrists and hands;

presently also about the feet and ankles; and soon afterwards, very large bullæ formed on the legs, thighs and forearms. There were grave adynamic symptoms at the same time. By careful treatment and good nursing, the patient is now (Feb. 4th) pulling safely through. Now, how are we to interpret this chain of curious phenomena? Do they form a series of what Sir W. Gull calls 'nerve vagaries'—a succession of nerve-storms, one disturbance effacing as soon as possible what went before, as if in a hurry to display its own signs? Or, according to a less transcendental view, we may regard different elements of skin-texture as effected by certain morbid influences, one after the other; and the wonder is, that a person at such an advanced age should be able to survive the shock of so many cutaneous lesions."—*British Medical Journal.*

DR. HENRY B. WILBUR, superintendent of the State Idiot Asylum at Syracuse since its foundation, died suddenly at the asylum April 30th, a8ed sixty-three years. He was a native of Wilden, Mass., and a graduate of Amherst College, and was the pioneer educator ef idiots in this country, having established the first school for this purpose in his own house in 1848. He took charge of our experimental asylum at Albany in 1851, and three years later was appointed to the position at the State institution at Syracuse, which he filled with distinguished ability up to the time of his death.—*Bostom Medical and Surgical Joarnal.*

CREDIT TO WHOM CREDIT IS DUE.—Philip Doddridge (1702–1751) spoke of nerve-stretching, and recommended it as a religious stimulant in his *Zeal and Vigor in the Christian Race*

"Awake, my soul: STRETCH EVERY NERVE,
And press with vigor on."

—*Glasgow Medical Journal.*

Items.

THE following is, as nearly as type can reproduce it, a facsimile of a postal card recently received by the Illinois State Board of Health:

> Fieldon Ill 5-12-83.
> John H Rauch M D. Sir. you still persist in trying to freighten our Graduates, like Springer of Hardin. who have attended two full, long terms in our School & Honorably graduated. I look upon you, as the chief, of a set of Dastard Bigots & villians & the sooner you arrest Springer the sooner you will get through with it.
> Yours. L C. Washburn. President of the St Louis Eclectic Medical College.

The "Dastard Bigots & villains," who compose the Illinois State Board of Health, decline to recognize the St. Louis Eclectic, and "freighten" its alleged graduates by refusing to issue them certificates entitling to practice. *Hinc illæ.*

On the 14th of March last a certificate was issued by the State Board of Health, entitling one Julius Nothhelfer, of 701 Pine street, St. Louis, to practice medicine and surgery in Illinois. The application for this certificate was based upon an affidavit that Nothhelfer was a graduate of the St. Louis Medical College, and this was corroborated by a letter from a member of the faculty of that institution, in which he says: "I can sincerely indorse Dr. Julius Nothhelfer, a graduate of the St. Louis Medical

College at the session of 1879-80, as to his moral and professional character and standing." In his first letter, March 7, Nothhelfer states that he intends "to practice in a country town in Illinois."

On the 24th of the same month, a similar certificate was issued to one Joseph Fitzgerald, also of 701 Pine street, St. Louis, and this was granted upon an affidavit that Fitzgerald graduated from the Royal College of Snrgeons, Ireland, in 1871. The affidavit was accompanied by a number of letters "bearing testimony to the capabilities of Dr. Fitzgerald as a medical man * * * eminently suited to take charge of any institution requiring a courteous and skilful medical officer." These were all written in Dublin, none later than 1874, and as this was not deemed recent enough by the secretary, a rather cautiously worded letter was forwarded by Fitzgerald from a prominent St. Louis physician, its reticence being plausibly explained by Fitzgerald on the ground of the latter being a stranger in that city. Fitzgerald requested that his certificate be sent to Belleville, St. Clair county, where he proposed to practice.

Last week the attention of Dr. Rauch, secretary of the State Board, was attracted by a large three column, four-page circular, headed "The Great Surgeons, Drs. Nothhelfer and Fitzgerald, late of London, Eng., graduates of King and Queen's college, will be at the Commercial Hotel, 100 to 104 Lake street, Chicago, for one month. Terms for treatment, cash. Charges, from $10 to $500, owing to the requirements of the case." In this circular, they not only promise to cure every imaginable disease, but offer $500 reward for an incurable case. Inferentially, it is the bulletin of the "St. Louis Medical and Surgical Institute," an establishment which, it is safe to say, has no tangible existence; but which, in this sheet at least, is "equipped with the most perfect surgical instruments and appliances, furnishes the most approved methods of treatment, and treats successfully the great majority of the diseases and deformities considered and given up as incurable." Everything is done by "new methods of treatment, new and recently invented instruments, and new and recently discovered remedies." Some of the passages are unique even in quack literature.

Of course correspondence is solicited after the usual method,

and for the usual purpose of the infamous fraternity; consultations are free, and every imaginable device is employed to entrap the victim. What is meant by "consultations free" was tested yesterday, when they offered to visit and prescribe for an imaginary patient gratis, but would charge $10 for the medicines.

The case is such a flagrant one, and comes so clearly within the authority of the Board, unhampered by the ten years' exemption clause, which shields the doctors Jameses, Keans, Clarks and others, that the secretary laid the fact at once before the individual members, and received their prompt authorization to revoke the certificate. After to-day, therefore, any professional act performed by "the great surgeons, Drs. Nothhelfer and Fitzgerald," in the State of Illinois, will subject them to fine and imprisonment in the county jail.

The foregoing was published in the Chicago and St. Louis papers of Wednesday A. M., May 2. Before noon of that day the street distributors of the circular were arrested, and within 24 hours Nothhelfer and Fitzgerald had "folded their tents," etc. It is understood they went to Milwaukee.

ERRATA.

The following corrections should be made in the article by Dr. F. C. Hotz, of Chicago, published in our last issue, and entitled "A Few Remarks on Foreign Bodies in the External Auditory Apparatus." The author was unfortunately out of the city when the JOURNAL went to press:

Page 20, 7th line from below, read *afterwards* instead of afternoon.

Page 21, 16th line from below, read *raw* instead of rose.

Page 22, line 21, read *useful* for unsafe; and, on page 25, the words "ear and meatus" are used several times for *ext. audit meatus.*

DR. JAMES NEVINS HYDE, of this city, is at the sea-shore. He will return to Chicago by the 1st of September, immediately after the annual meeting of the American Dermatological Association at Lake George.

ECSTASY.

Several physicians of Paris, and especially those, who make a study of nervous diseases, have been lately much concerned about a case of ecstasy, presented by a woman taken in the Beaujon Hospital. She was found by the police lying in a seat in the Champs Elysée completely insensible. Taken to the station, Dr. Pinel could not awaken her, although he used every means generally adpated to such an end. The patient is in an advanced state of pregnancy, has the eyes wide open, keeps the mouth closed, does not speak and eats little and rarely.

GONORRHŒAL SCIATICA.

There seems to exist a very interesting relation between gonorrhœa and the development of sciatic neuralgia. Becchini reports in *Lo Sperimentale* the history of two patients taken with acute pains along the course of the sciatic nerves during the acute stages of gonorrhœa. All the usual remedies used for sciatica were tried without success. Relief was not obtained until the complete cure of the gonorrhœa, treated with the usual remedies.—*Le Praticien.*

DR. ROSWELL PARK, of this city, is about to remove to Buffalo, where he will engage in the practice of surgery. We can ill-afford to lose his name from the list of the profession in Chicago.

DR. CHAS. GILMAN SMITH is at the east. He is expected to return in August.